ENVIRONMENTAL COMMISSIONER OF ONTARIO

2003-2004 Annual Report

CHOOSING OUR LEGACY

I conceive that the land belongs to a vast family
of which many are dead, few are living, and countless
numbers are still unborn.

– Author Unknown

Environmental
Commissioner
of Ontario

Commissaire à
l'environnement
de l'Ontario

Gord Miller, B.Sc., M.Sc.
Commissioner

Gord Miller, B.Sc., M.Sc.
Commissaire

October 2004

The Honorable Alvin Curling
Speaker of the Legislative Assembly
Room 180, Legislative Building
Legislative Assembly
Province of Ontario
Queen's Park

Dear Mr. Speaker:

In accordance with Section 58 of the *Environmental Bill of Rights, 1993*, I am pleased to present the 2003/2004 annual report of the Environmental Commissioner of Ontario for your submission to the Legislative Assembly of Ontario.

Sincerely,

G Mill

Gord Miller
Environmental Commissioner of Ontario

1075 Bay Street, Suite 605
Toronto, Ontario M5S 2B1
Tel: 416-325-3377
Fax: 416-325-3370
1-800-701-6454

E C O
C E O

1075, rue Bay, bureau 605
Toronto (Ontario) M5S 2B1
Tél : 416-325-3377
Téléc : 416-325-3370
1-800-701-6454

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A MESSAGE FROM THE ENVIRONMENTAL COMMISSIONER

Choosing our Legacy

We look back and judge our ancestors by their lasting achievements, the legacies they left for us and other future generations. Sometimes their achievements were bold and grand, like the vision of a great railway from coast to coast, which served as the catalyst to create our nation. Other generations left us less grandiose legacies, but no less important, such as our prosperous post-war economy with its strong, stable institutions. There was one thing past generations had in common – they wanted a better world for their children, grandchildren and beyond. And they were willing to invest scarce resources, make sacrifices and forego more immediate opportunities in order to achieve those benefits for generations yet unborn.

We live in prosperous yet turbulent times. In Ontario, we are growing rapidly and the technology of our age is changing everything, from our institutions to the way we live our lives. Perhaps it is useful for us to pause and consider what our own legacy will be. What are the dreams of our generation? What are we working to achieve? What kind of world will we leave to our great-great-grandchildren? And on what basis will they judge us?

It certainly appears that the condition of the environment and the sustainability of our lifestyle are some of the defining challenges of our time. Our economic growth is still closely tied to the consumption of energy and materials. And since we aspire to a compounding annual growth rate of about 3 per cent, it means that our demand for energy and materials will apparently double every 24 years. We have, of course, been achieving and more or less sustaining this rate of growth in consumption for some years now, but we started from a much smaller base level. Think of the parable of the king who agreed to give a reward of one kernel of grain for the first square on a chess board, two kernels on the second and so on, doubling each square. Like the shortsighted king, we will not make it to the 64th doubling. There was not enough grain in the country for the king to meet his commitment – and there will not be enough energy, capital and resources for us as well to sustain a constant compounding growth in consumption.

At some stage things will have to change. That could begin to happen now if our generation begins to change the way we live in order to create a less consumptive society. Or we could leave the problem to future generations, who will have no choice but to face these issues when shortages become acute and the environmental impacts of social and economic activities become intolerable. It is still our choice to make. They will not have that option.

To be fair to those of us here and now, in recent years in Ontario our governments have made some progress toward a more sustainable society. The *Crown Forest Sustainability Act* and the *Environmental Bill of Rights* were early initiatives. Ontario's Living Legacy and the *Oak Ridges Moraine Conservation Act* were controversial, but in the long run they will prove to be valuable initiatives that improved our management of the land and the potential for protecting biodiversity. And today we have a plethora of proposed planning policies placed before the people, policies that will change our method of growth and development and move the focus of our planning to the watershed or landscape level. All of these are worthwhile and necessary initiatives. But are they enough?

Where we have not made any significant progress toward a sustainable future is at the level of our personal lifestyles, the ground on which governments fear to tread. We still do not charge the full cost of the treated water that is delivered to our homes, yet we know to do so would lead to conservation. Our home electricity consumption is excessive by any standard, nor do we pay the full cost of its production. Gasoline remains cheap by world standards – and it seems to remain acceptable for the government to spend tax money on roads but not on transit. Although there is reasonable buy-in to the Blue Box program, our production of household solid waste remains a problem without a long-term solution in the most populous areas of the province.

The list of environmental issues goes on. The point is our individual ecological footprint is too big, and every year there are more of us – so the collective footprint just keeps expanding.

Are we prepared to face these issues? Do we want to shape a more sustainable future? Or do we just blunder into the future, dealing with environmental problems on an ad hoc basis as they arise and letting the chips fall where they may? We may or may not chose our legacy, but one thing is certain, we *will* leave a legacy and generations hence will judge us by it.

Gord Miller
Environmental Commissioner of Ontario

PART 1:

The *Environmental Bill of Rights*

The *Environmental Bill of Rights (EBR)* gives the people of Ontario the right to participate in ministry decisions that affect the environment. The *EBR* helps to make ministries accountable for their environmental decisions, and ensures that these decisions are made in accordance with goals all Ontarians hold in common — to protect, conserve, and restore the natural environment for present and future generations. The provincial government has the primary responsibility for achieving these goals, but the people of Ontario now have the means to ensure they are achieved in a timely, effective, open and fair manner.

The *EBR* gives Ontarians the right to . . .

- comment on environmentally significant ministry proposals.
- ask a ministry to review a law or policy.
- ask a ministry to investigate alleged harm to the environment.
- appeal certain ministry decisions.
- take court action to prevent environmental harm.

Statements of Environmental Values

Each of the ministries subject to the *EBR* has a Statement of Environmental Values (SEV). The SEV guides the minister and ministry staff when they make decisions that might affect the environment.

Each SEV should explain how the ministry will consider the environment when it makes an environmentally significant decision, and how environmental values will be integrated with social, economic and scientific considerations. Each minister makes commitments in the ministry's SEV that are specific to the work of that particular ministry.

The Environmental Commissioner and the ECO Annual Report

The Environmental Commissioner of Ontario (ECO) is an independent officer of the Legislative Assembly and is appointed for a five-year term. The Commissioner reports annually to the Legislative Assembly — not to the governing party or to provincial ministries.

In the annual reports to the Ontario Legislature, the Environmental Commissioner reviews and reports on the government's compliance with the *EBR*. The ECO and staff carefully review how ministers exercised discretion and carried out their responsibilities during the year in relation to the *EBR*, and whether ministry staff complied with the procedural and technical requirements of the law. The actions and decisions of provincial ministers are monitored to see whether they are consistent with the ministries' Statements of Environmental Values (see pages 8-10).

Part 2 of this annual report reviews the use of the Environmental Registry by prescribed ministries, evaluating the quality of the information ministries post on the Registry and whether the public's participation rights under the *EBR* have been respected. In Part 3, Significant Issues, the ECO highlights a number of important issues that have been the subject of recent applications under the *EBR* or are related to recent decisions posted on the Environmental Registry. In Part 4, Ministry Environmental Decisions, the Environmental Commissioner and ECO staff assess how ministries used public input to draft new environmental Acts, regulations and policies. In Part 5, Reviews and Investigations, the ECO reviews how ministries investigate alleged violations of Ontario's environmental laws and whether applications from the public requesting ministry action on environmental matters were handled appropriately. Part 6, Appeals, Lawsuits and Whistleblowers, deals with appeals and court actions under the *EBR*, as well as the use of *EBR* procedures to protect employees who experience reprisals for "whistleblowing."

In Part 7, Ministry Progress, ECO staff follow up on the progress made by prescribed ministries in implementing recommendations made in previous annual reports. Part 8, Developing Issues, draws attention to a number of issues that the ECO and staff believe deserve stronger and more focused attention from Ontario ministries.

Ministries Prescribed Under the EBR

Agriculture and Food	(OMAF)
Consumer and Business Services	(MCBS)
Culture	(MCL)
Economic Development and Trade	(MEDT)*
Energy	(ENG)
Environment	(MOE)
Health and Long-Term Care	(MOHLTC)
Labour	(MOL)
Management Board Secretariat	(MBS)
Municipal Affairs and Housing	(MMAH)
Natural Resources	(MNR)
Northern Development and Mines	(MNDM)
Tourism and Recreation	(MTR)
Transportation	(MTO)

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* During the 2003/2004 ECO reporting period, the Ministry of Enterprise, Opportunity and Innovation was renamed the Ministry of Economic Development and Trade.

Progress Report: Ministry Statements of Environmental Values

The *Environmental Bill of Rights* requires each prescribed ministry to develop a Statement of Environmental Values (SEV) that outlines how the ministry applies the purposes of the *EBR* in its environmental decision-making, and how it considers the purposes of the *EBR* along with social, economic, scientific and other considerations. The SEVs are to be considered whenever environmentally significant decisions are made in the ministry, and the ECO is required to report annually on ministry compliance with SEVs.

All but four of the ministries' SEVs will be 10 years old in November 2004, and the ECO has reported for several years that the SEVs are due for review and updating. The ECO and others have criticized some SEVs because they are vague; few ministries have translated their general principles into specific commitments or incorporated those commitments into their activities and ministry Business Plans.

In 2002, most ministries told the ECO they were planning to review their SEVs. The Ministry of the Environment decided to lead a broad cross-ministry review, aiming to have the SEVs reflect a government-wide vision, and to respond to some of the concerns raised by the ECO. In March 2003, MOE said that the first phase would be to revise the SEVs to realign them with current ministry mandates and post them to the Environmental Registry in the summer of 2003. The second phase would be to develop a process to standardize application of the SEVs across ministries, and the third phase would be to continue discussions across ministries regarding the need for further reform in the long term.

We asked MOE for a progress report on the SEV review and received a letter in April 2004. MOE said that from April to July 2003, *EBR* ministries undertook the phase one review of their current SEVs and made "realignment changes" to their SEVs. But no proposed changes were posted to the Registry, as expected, in the summer of 2003. MOE said that a senior management level cross-ministry committee was struck in June 2003 to initiate the second phase of developing a process to standardize the application of SEVs. The ECO was told by MOE staff that three meetings were held, but several smaller ministries did not attend.

There has been no progress on the ministries' commitment to review their SEVs since the summer of 2003. MOE said the change in government in the fall of 2003 has "had an impact on the progress of this work" in the following ways:

- Staff in each ministry need to confirm approaches with new ministers and deputy ministers.
- A number of ministries have revised mandates.
- The government is reviewing the manner in which ministries plan and carry out their core business functions and has set clear priorities on education and health.
- The government is currently examining its spending to ensure the delivery of priority services.

MOE noted that "while these events and activities have delayed the work on the SEV project . . . by advancing the SEV project in sequence with the government's broader priority setting exercises, we have an excellent opportunity to ensure the resulting SEVs represent the most current status of the prescribed ministries."

MOE says it is now in a position to "re-engage" with the other *EBR* ministries in order to build on the work done in 2003 and to complete the SEV review project as planned. Part of this re-engagement will be a discussion with other ministries to discover whether they plan to revise their SEVs at this time. In the absence of targets or timelines for completion, it appears that the SEV project remains completely stalled.

ECO Comment

MOE's written response to the ECO is very disappointing. While the change in government would have contributed to some delay, it is clear to the ECO that the SEV revision project stalled mainly because of the lack of commitment and project leadership at MOE. During 2003 and 2004, the SEV revision project was all but abandoned when the former project lead left the ministry. The project was moved around to several different areas of the ministry and apparently was not a priority for senior management in the ministry. Unfortunately, because MOE had announced it was carrying out this cross-ministry project, any individual ministries that may have planned to review and update their SEVs were delayed by MOE's lack of action.

The ECO urges the ministries to review their SEVs. If MOE is not able to develop an approach and schedule for a cross-ministry review, then any ministry ready to bring a revised SEV forward for public review by posting a notice on the Registry should do so without delay. *(For mininstry comments, see page 197.)*

Recommendation 1

The ECO recommends that prescribed ministries review, update and strengthen their Statements of Environmental Values as soon as possible.

Instruments: The Case of the Groundhog River

What are instruments?

Instruments are legal documents that Ontario ministries issue to companies and individuals granting them permission to undertake activities that may adversely affect the environment, such as discharging pollution into the air, taking large quantities of water, or mining for aggregates. Instruments include licences, orders, permits and certificates of approval.

Classifying instruments

Under the *Environmental Bill of Rights*, certain ministries must classify instruments they issue into one of three classes according to how environmentally significant they are. A ministry's instrument classification regulation is important for Ontario residents wishing to exercise their rights under the *EBR*. The classification of an instrument determines whether a proposal to grant a license or approval will be posted on the Registry. It also determines how much input the public has in the decision-making process, whether through making comments or applying for appeals, reviews or investigations under the *EBR*. If instruments are not classified, they are not subject to the *EBR* notice and comment provisions. Moreover, if instruments are not classified, the public cannot seek leave to appeal when they are issued, or request an investigation into allegations regarding violations of instruments or reviews of instruments.

Effect of public comments on instruments

As part of our work, the ECO reviews ministry decision-making on selected instruments. In order to illustrate how the public is participating in government decision-making, one of the ECO's reviews is summarized below. This example confirms that instrument proposals can evoke strong public interest.

Approval for Sewage Works on the Groundhog River

Falconbridge Limited Mines applied to the Ministry of the Environment for a certificate of approval (C of A) for operations at its Montcalm mine, approximately 70 km northwest of Timmins. This sewage works, including a slimes settling basin, will treat groundwater pumped out to dewater the mine. Falconbridge proposed two possible routes by which effluent would enter the Groundhog River – a buried pipeline or an open ditch. Both routes would transect the proposed boundary of the Groundhog River Provincial Park as

laid out by Ontario's Living Legacy (OLL) Land Use Strategy in 1999. However, Falconbridge has the rights to a mining claim that was staked in 1993 where the proposed pipeline would meet the Groundhog River.

The Groundhog River is an ecologically significant waterway. The Ministry of Natural Resources is in the process of regulating it under the *Provincial Parks Act* as a waterway class provincial park. This highly diverse site contains approximately 22 different landform vegetative combinations. The Groundhog River is also habitat for a population of lake sturgeon that the Ministry of Natural Resources has identified as an uncommon or rare species in Ontario that may be susceptible to large-scale disturbances. Both options may pose a risk to the sturgeon, particularly under low flow conditions.

Five private citizens and three non-governmental organizations submitted comments on the proposed C of A, raising a wide range of concerns. They include site water quality management, receiving water impacts, groundwater impacts, monitoring, policy conflicts with the proposed waterway class provincial park, First Nations consultation, the piecemeal approach to approvals such as this one, impacts on wildlife, increased truck traffic in Timmins, the construction of access roads and powerlines, the need for environmental awareness training for employees of the mine, and the past environmental performance of Falconbridge.

MOE granted the C of A. However, the ministry's approval is for the pipeline discharge option only, since the proposal by MNR to amend its own Land Use Strategy, which would allow the potential discharge through the drainage ditch, has not been resolved. In formulating its approval, MOE consulted with MNR with regard to fisheries and water quality concerns. MOE did impose a detailed series of conditions in approving the C of A, including that Falconbridge will monitor the impact of the effluent on the sturgeon population.

The ECO is concerned with the way in which MOE, MNR, and the Ministry of Northern Development and Mines dealt with the potential impact of the C of A on the proposed Groundhog River Provincial Park. Each of the ministries followed their formal approvals processes. However, the system's current checks and balances did not prevent a result with potentially distressing environmental consequences: mining effluent will be piped into a river that was meant to be protected for its natural, wilderness-like qualities.

The express purpose of a waterway provincial park is environmental protection. Provincial parks of this type are composed of a watercourse and a contiguous strip of adjacent lands. MNR's internal policy for addressing mining claims that are superimposed on areas meant for protection stipulates that "the implementation of disentanglement decisions will not compromise the 200 metre setback associated with Waterway Class Provincial Parks or, to the extent possible, other buffers established for ecological integrity and design considerations." MNR's internal policy has thus recognized that excluding any of these riparian lands from regulation might seriously impair the ecological integrity and the very purpose of the park designation.

The ECO wonders how MNR deemed either the pipeline or the ditch options to be compatible with the purpose of the waterway park. MNR saw its responsibility as developing "creative solutions" for withdrawing such mining claims in order to finish regulating protected areas established by OLL. Clearly, allowing the construction of a pipeline on a pre-existing mining claim or proposing to alter the park boundary to allow an open ditch are not the "creative solutions" that follow from the Province of Ontario's commitment to protect the Groundhog River.

In its 2001/2002 annual report, the ECO recommended that MOE explicitly consider its Statement of Environmental Values (SEV) when making decisions on instruments. The ministry's position is that this is not necessary. Given the uncertainty of the impact and the risk posed to the lake sturgeon population, the ECO believes that MOE's issuance of the C of A runs counter to its own SEV, which states that it "will exercise a precautionary approach in its decision-making. Especially when there is uncertainty about the risk presented by particular pollutants or classes of pollutants, the Ministry will exercise caution in favour of the environment."

This C of A is a definitive example of why SEVs should be considered in the instrument approvals process. Had MOE actually followed its SEV commitment of adopting "an ecosystem approach to environmental protection and resource management" in considering the proposed waterway park in the approvals process, the outcome might have been significantly different. *(For mininstry comments, see page 197.)*

ECO Educational Initiatives

One of the key mandates of the Environmental Commissioner of Ontario is to provide education about the *Environmental Bill of Rights (EBR)* to the people of Ontario. This important part of the *EBR* ensures that Ontarians learn about their right to participate in a meaningful way in the province's environmental decision-making process. This year the ECO made presentations to approximately 15,000 persons, distributed a similar number of publications, and answered 1,700 direct inquiries from the public. The ECO's commitment to a multifaceted outreach strategy includes participation in broad-based environmental events, as well as making a concerted effort to reach all sectors of Ontario's diverse population. Integral to this strategy is the ECO's Web site (www.eco.on.ca), which has a wide range of information and contacts to ensure that all visitors can fully exercise their legislated environmental rights.

As always, we invite you to call us with questions, comments, and requests for information, or for a speaker from our office (416-325-3377 or 1-800-701-6454).

The ECO's Resource Centre

The ECO's Resource Centre (RC) exists to provide access to environmental information for the residents of Ontario, as well as to support the research needs of ECO staff. The RC's Ontario-focused environmental collection is comprised primarily of a comprehensive collection of government publications and a comparable number of books. With the exception of the Legislative Assembly of Ontario Library, which is not open to the public, this unique collection is duplicated in no other library in the Greater Toronto Area.

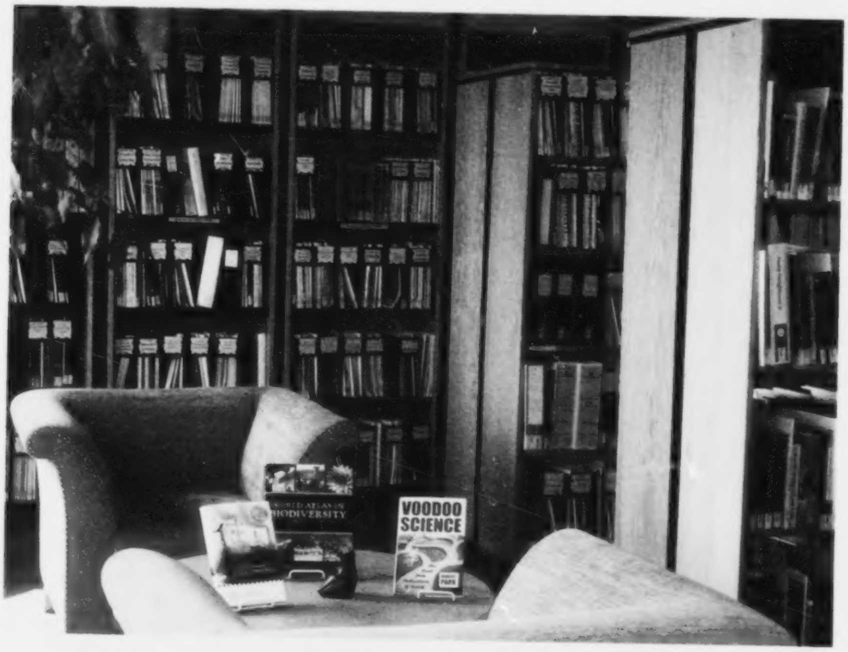
The non-circulating collection of approximately 5,000 documents is accessible through an online catalogue on the ECO's Web site. The subjects include:

General/subject specific books on a wide range of timely environmental topics
Ontario government publications
Federal government reports
International governmental and non-governmental publications
Corporate/government/ENGO annual reports
Environmental law and policy publications
100 journals

- Reference works
- Environmental management literature
- All four daily Toronto newspapers
- Ministry of the Environment press clippings

Staffed by a full-time librarian, the Resource Centre is open to the public five days a week, from 9:30 a.m. to 5 p.m..

The Resource Centre is located at 1075 Bay Street, Suite 605; Toronto, ON M5S 2B1
Tel: 416-325-0363
FAX: 416-325-3370
resource.centre@eco.on.ca
www.eco.on.ca/english/resouctr/index.htm



PART 2:

The Environmental Registry

The Environmental Registry is the main component of the public participation provisions of the *Environmental Bill of Rights*. The Registry is an Internet site where ministries are required to post notices of environmentally significant proposals for policies, Acts, regulations and instruments. The public then has the opportunity to comment on these proposals before decisions are made. The ministries must consider the comments when they make their final decisions and explain how they affected their decisions. The Registry also provides a way for the public to become informed about appeals of instruments, court actions and other information about ministry decision-making. The Registry can be accessed at www.ene.gov.on.ca/envision/env_reg/ebr/english/index.htm (or at the ECO Web site www.eco.on.ca, then following the links).

Registry Re-engineering Project

The Ministry of the Environment is leading a project to refresh the technology, implemented in 1998, of the Environmental Registry. The project provides the opportunity to improve public engagement and participation in environmental decision-making by upgrading the Registry to take advantage of recent developments in technology and the experience and feedback obtained in the past six years as a result of operating the existing Registry.

Quality of Information

The Environmental Registry is only as good as the information it contains. The *Environmental Bill of Rights* sets out basic information requirements for notices that ministries post on the Registry, though ministries also have discretion on whether to include other information. Previous annual reports of the Environmental Commissioner of Ontario have recommended that in posting information on the Environmental Registry, ministries should use plain language and provide clear information about the purpose of the proposed decision and the context in which it is being considered. Ministries should clearly state how the final decision differs from the proposal, if at all, and explain how all comments received were taken into account. All notices should provide a contact name and telephone and fax number, as well as hypertext links to supporting information whenever possible.

The ECO evaluates whether ministries have complied with their obligations under the *EBR* and exercised their discretion appropriately in posting information on the Registry. This ensures that ministries are held accountable for the quality of the information provided in Registry notices.

Comment periods

The *EBR* requires that ministries provide residents of Ontario with at least 30 days to submit comments on proposals for environmentally significant decisions. Ministries have the discretion to provide longer comment periods, depending on the complexity and level of public interest in the proposal. The ECO is pleased that all proposal notices placed on the Registry in 2003/2004 were posted for at least 30 days.

The Ministry of the Environment posted only four out of 18 proposals for new policies, Acts or regulations for 45 days or more. The ECO is concerned that MOE has demonstrated a marked decline in the length of time for consulting the public on its proposals compared to the previous reporting year. However, the Ministry of Natural Resources has shown improvement in this area. MNR posted 28 out of 50 proposals for new policies, Acts or regulations for 45 days or more.

The ECO advises prescribed ministries against placing a number of proposal notices for related initiatives on the Environmental Registry on the same date with short comment periods. For example, the Ministry of Health and Long-Term Care posted six proposals for new policies on the same day, each with a 30-day comment period. This may frustrate the public and lead to less public participation, given that these were the only proposal notices posted by MOHLTC in the reporting year, all posted on the same day and all with the minimum length of comment period.

Adequate time to comment on Acts

The ECO commends the Ministry of Municipal Affairs and Housing for allowing significant comment periods for two separate proposed pieces of legislation. On December 16, 2003, MMAH posted a proposal notice on the Environmental Registry for the *Strong Communities (Planning Amendments) Act, 2003* (Bill 26), with a 90-day comment period. On December 24, 2003, MMAH posted a proposal notice on the Environmental Registry for the *Greenbelt Protection Act, 2003* (Bill 27), with a 30-day comment period. MMAH subsequently reposted the proposal notice for Bill 27, allowing a 90-day comment period.

On December 3, 2003, the Ministry of Energy posted a proposal notice on the Environmental Registry for the *Ontario Energy Board Amendment Act (Electricity Pricing), 2003* (Bill 4), with a 30-day comment period (see pages 104-106). However, this legislation received Royal Assent on December 18, 2003. ENG included a note on the proposal notice that the comment period may be shortened if the bill received Third Reading before the end of the *EBR* comment period. While the ECO understands that there are circumstances where legislative processes and *EBR* processes need to work concurrently, ministries should structure these processes to allow a reasonable time for commenting and for comment consideration by the ministry. As noted in the ECO's 2002/2003 annual report, ENG's posting of Bill 210 in 2002 had similar constraints. This undermines the public's ability to get involved in a key decision-making area. ENG should make every effort to compensate for the inadequate comment periods for Bill 210 and Bill 4 by engaging the public in initiatives related to, and subsequent to, Bill 4, as well as planning for more reasonable timeframes for other initiatives.

Description of proposals

Ministries are required to provide a brief description of proposals posted on the Registry. The description should clearly explain the nature of the proposed action, the geographical location(s), and the potential impacts on the environment. During this reporting period, descriptions of proposals for policies, Acts and regulations generally met the basic requirements of the *EBR*. The proposal notices provided brief and understandable explanations of the actions the ministries were proposing. However, ministries could still improve the contextual background information for their proposals, since many readers may not be familiar with environmental law and policy in Ontario.

The quality of descriptions for instrument proposal notices was again varied in 2003/2004. Prescribed ministries have taken steps toward providing better descriptions. However, improvements can still be made, particularly by MOE. In the case of some certificates of approval, MOE is simply using the description of the proposal as written by the company requesting approval. Such descriptions may be difficult for lay people to understand.

Access to supporting information

The majority of proposals for policies, Acts, and regulations posted on the Registry in 2003/2004 provided access to supporting information by listing a contact person, phone number and address. The ECO appreciates the ministries' efforts in this regard. However, as observed in previous annual reports, many of MOE's instrument proposals failed to provide a contact name. The vast majority of proposals had hypertext links to supporting information, which can be an excellent aid to the public. Unfortunately, in many cases users who tried to access the supporting material found that the link connected to a list of all government statutes and not directly to a specific document of interest.

Quality of Decisions: Falconbridge Certificate of Approval

The ECO believes that the technical rationale used in decision notices posted on the Environmental Registry should be clearly presented. Unfortunately, this is not always the case. For example, in a recent decision notice for the certificate of approval (C of A) for a mine water treatment system issued to Falconbridge Limited (see pages 11-13 for further details), MOE gave a confusing analysis of the effect of the proposed discharge that mixed units of measurement, made serious numerical errors, and showed evidence of an unclear rationale in the instrument decision.

For example, the Decision Notice text stated erroneously that the background concentration of copper in the Groundhog River was ".003 ug/l," and that the discharges to this river would elevate copper "a few ug/l" above this background. In fact, river background copper concentrations should have been stated as 3 μg/L (using proper SI units), which is 1,000 times higher. The predicted elevation in copper concentration should have been provided as a number, and not as "a few ug/l above the background. Note also that "elevating the concentration of copper a few ug/l above this background" would result in exceedance of the Provincial Water Quality Objective of 5 μg/L immediately below the pipeline discharge point. Although this is an exceedance in the "mixing zone," which is allowed under MOE policy, it is not appropriate to minimize this fact in the explanation.

In discussing toxicity, MOE states: "Copper is permitted to be discharged at a maximum daily rate of 0.6 ppm but the concentration required to pass the toxicity requirement is in many cases less than **three** and can be lower than 0.15 ppm." The writer probably meant 0.3 ppm, but readers are forced to guess. In addition, units of measurement are unnecessarily switched between ppm and mg/L or ug/l (μg/L) within the same paragraph. Nor is any reference source given for the toxicity range. The issuance of this C of A was a highly contentious one, and it is unfortunate that MOE's imprecise use of terminology and language probably detracted from an informed understanding by the public.

Environmental impacts

The ECO has expressed concern in previous annual reports that ministries are not adequately explaining the environmental impacts of proposals. Although the *EBR* does not legally require ministries to include this information, it provides the public with the information necessary to make informed comments on proposals. In 2003/2004, all ministries often failed to provide an adequate explanation of potential environmental impacts in their proposal notices for policies, Acts, regulations and instruments. Environmental impacts were typically explained only in regulations proposed by MNR and MOE.

Description of the decision

Once a ministry has made a decision on a proposal posted on the Registry, the *EBR* requires the minister to provide notice of the decision as soon as possible. The description of the decision in a Registry notice lets residents of Ontario know the outcome of the public consultation process. Most descriptions of ministry decisions continue to be quite brief. Many simply stated that the decision was "to proceed with the proposal" or "approval granted." In the interest of clarity and transparency, ministries should include the dates on which the decision was made and when it became effective, and the regulation number, if applicable.

Explaining how public comments were addressed

The *EBR* requires the prescribed ministries to explain how public comments were taken into account in making a decision. Ministries should take the time and effort to summarize the comments, state whether the ministry made any changes as a result of each comment or group of related comments, and explain why or why not. Without this description, commenters will not know whether their comments were considered. In situations where there is a large number of comments, ministries should make an effort to summarize them appropriately and describe their effect on the decision.

Ministry staff frequently produce comment summary tables or documents when there are large numbers of public comments on a proposal. The ECO believes that these summaries would be of value to the public in understanding the decision. Ministry staff could provide the documents by hypertext link in the decision notice. This would be particularly valuable when many comments were received and there is not sufficient space to detail all the comments in the decision notice.

Summary

The Environmental Registry usually provides the first point of contact for Ontario residents who want to participate in environmental decision-making. The Registry should be as user-friendly as possible. The suggestions and recommendations contained in this and previous annual reports are intended to improve the quality of information on the Registry and to ensure that the public is able to participate fully in Ontario's environmental decision-making process.

Untraceable Comments

The *EBR* gives Ontarians the right to participate in the government's environmental decision-making process. Public comments on proposals for new polices, Acts, regulations, and instruments are a fundamental means of ensuring the best possible system of environmental protection in Ontario. Unfortunately, the ECO is aware of two instances in which this right has been abused.

Large quantities of photocopied form letters were submitted as comments on two separate proposals. In each case, the form letters appear to have been signed by a few individuals. Attempts to verify the individual identities on the form letters were unsuccessful, since the mailing addresses did not exist and no telephone numbers were provided. This made it impossible to trace and verify the authenticity of the comments.

The ECO advises prescribed ministries to disregard comments that are intentionally untraceable. The ECO also advises ministries to note in their decision notice on the Environmental Registry that such comments were received. Prescribed ministries should also notify the ECO when they receive intentionally untraceable comments.

Submitting intentionally untraceable comments is counterproductive and undermines the rights of all Ontarians to participate in the decision-making process. The public comment provisions of the *EBR* should not be construed as a simple vote on a given government proposal. They are a means for the public to provide insightful, substantive and personal comment for the consideration of ministries on their proposals.

The ECO encourages members of the public who submit a comment on a proposal to include some means of verifying their submission, be it in the form of a name, address, telephone number or e-mail address.

Unposted Decisions

Sometimes ministries fail to meet their obligations to solicit public input on environmentally significant decisions through the Environmental Registry. In such cases, the ECO may urge a ministry to meet *EBR* requirements for public consultation, as the examples below illustrate.

(Pages 1-13 of the Supplement to this report contain more information on unposted decisions and a full list of the decisions reviewed by the ECO in the 2003/2004 reporting period.)

Ontario's West Nile Virus Prevention Plans for 2003 and 2004

In May 2003, the Ministry of Health and Long-Term Care released a West Nile Virus Preparedness and Prevention Plan for Ontario without seeking province-wide public input into the Plan's development through the Registry. The ECO learned subsequently that the government intended to make changes to its West Nile Virus Plan for 2004, again without broad consultation through the Registry.

The 2003 West Nile Virus Plan provided for the use, under specific circumstances, of certain approved pesticides to control mosquitoes that carry the West Nile virus. The pesticides could be applied to standing water to destroy mosquito larvae ("larviciding"), or to the air by spraying to destroy adult mosquitoes ("adulticiding"). The 2003 Plan was premised upon local Health Units' undertaking risk assessments in their jurisdictions prior to taking actions to address the West Nile virus. A regulation made by the ministry required local Medical Officers of Health to follow the Plan.

The ECO does not accept MOHLTC's rationale for not using the Registry. The ministry told the ECO that it consulted with stakeholders when forming the 2003 and 2004 Plans (several months in advance of releasing the documents) and placed the 2003 Plan on the ministry's Web site. Merely posting information on a Web site after the fact is not comparable to soliciting and considering public input through a policy proposal notice on the Registry. Moreover, a decision notice would have shown the public how their comments were taken into account. And according to the ECO's 1996 Guidance Document on implementing the *Environmental Bill of Rights*, ministries should post policy proposals on the Environmental Registry at the same time other public consultation begins.

The ministry also informed the ECO that only registered pesticides should be used for larviciding or adulticiding. However, the potential wide-scale application of pesticides to the province's ecosystems is clearly environmentally significant. The most widely used larvicide (methoprene) has been detected in surface water samples in the natural environment. This bears watching, notwithstanding MOHLTC's statement that current detection levels are well below concern.

Because the 2003 and 2004 Plans are environmentally significant and meet the *EBR*'s definition of policy, the ministry had an obligation to consult with the public when developing its approach for addressing the West Nile virus. At the urging of the ECO, the Ministry of Health and Long-Term Care subsequently committed to using the Registry in the future to consult with Ontarians on elements of the 2005 West Nile Virus Plan.

Electricity conservation in Ontario

In our 2002/2003 annual report, the ECO urged the Ministry of Energy to post proposals on the Environmental Registry for the ministry's energy-related initiatives prior to implementation. During this reporting year, the new government announced it was developing an electricity conservation strategy. Since such a strategy would meet the *EBR*'s definition of an environmentally significant policy and would affect a large number of Ontario citizens, the ECO reminded the ministry of its obligation to use the Environmental Registry as part of its consultation plan.

In response, the Ministry of Energy stated that the Premier had recently announced elements of a conservation strategy – for example, the installation of smart meters in homes by 2010, as well as confirming a target of reducing energy demand in Ontario by 5 per cent by 2007. The ministry noted the government's intent to consult the public in the future on "measures to promote a conservation culture" and to use the Registry to consult on upcoming legislative reform of the province's electricity sector.

Energy conservation is a topic of great interest to Ontarians. The ECO believes that the public would welcome and should have been afforded the opportunity to participate in the establishment of a province-wide energy reduction target and an overall conservation strategy. In this regard, the Ministry of Energy failed to meet its *EBR* obligation to engage in wide-ranging consultation using the Registry. The ECO urges the ministry to post policy proposals on the Registry for any future revisions to the conservation strategy or the target for reducing provincial energy use.

Species at Risk guidance documents

During this reporting year, the ECO learned that the Ministry of Natural Resources produced the following draft documents, dated June 2003:

- Recovery Planning Guidelines for Species at Risk in Ontario
- Guidelines for Listing and Regulating Species at Risk in Ontario
- Landowner Contact Tool Kit for Species at Risk Listing and Regulation

MNR released these documents internally and welcomed comments from ministry staff, but neglected to consult with the public through a notice on the Registry.

The direction contained in the reports appeared to be designed either to fill a gap caused by the absence of a cohesive and publicly available provincial Species at Risk Strategy or to support such a Strategy once it is developed. The ECO also believes that these policies are environmentally significant and should not be viewed solely as internal ministry directives. For that reason and because the policies merit public input, the ECO contacted MNR and urged the ministry to post policy proposal notices for the documents on the Registry if final decisions had not been made.

MNR informed the ECO that the documents are not designed to fill a gap or provide policy support and that they do not meet the *EBR*'s definition of policy, but instead are internal procedural administrative documents to guide staff in developing specific recovery strategies and proposals for listing and regulating species at risk. The ministry also noted that it will post draft recovery strategies, and proposals for listing and regulating species at risk on the Registry for public comment.

While MNR's documents contain administrative elements, they guide staff's development of important environmental strategies, lists and regulations. As such, the ECO views them as policies. The fact that specific recovery strategies and proposals for listing and regulation should also be posted on the Registry does not remove the need to consult publicly on the guiding principles, especially in the interim as we await the provincial Species at Risk Strategy. Regarding use of the Registry, only two species at risk recovery plans or strategies have been posted, despite ministry records showing that more than 20 exist in draft form. The ECO encourages MNR to reconsider its position and use the Registry to solicit public input on its species at risk guidance documents. *(For mininstry comments, see pages 197-198.)*

Information Notices

A ministry may post an "information notice" in cases where provincial ministries are not required to post a proposal notice on the Environmental Registry for public comment.

During the 2003/2004 reporting year, six ministries posted 81 information notices related to policies, regulations and instruments:

- MMAH – 29
- MNDM – 4
- MNR – 29 (and 29 additional notices for Forest Management Plans)
- MOE – 16
- MTO – 1
- MOHLTC – 2

The ECO reviews whether or not ministries use information notices appropriately and considers whether notices are clear and complete. Please refer to Section 2 in the Supplement to this report for a discussion on the appropriate use of information notices and on the components of a quality information notice. The Supplement also presents the ECO's detailed review of each information notice posted this year.

This year the Ministry of Natural Resources posted five information notices about the disposition (i.e., sale) of conservation authority land by conservation authorities. As indicated last year, the ECO believes that the ministry's use of information notices in this case was inappropriate. As described in more detail in the ECO's 2002/2003 report (page 10), the ECO views these land sales as "instruments" that warrant the opportunity for public comment through the Registry.

The Ministry of Health and Long-Term Care posted its first information notices during this reporting period. One notice described a new provision for dental amalgam waste disposal included in the general regulation under the *Dentistry Act*. The notice indicated that the regulatory amendment will make Ontario dentists compliant with the Canada-wide Standard on Mercury for dental amalgam waste. The *Dentistry Act* and its regulations are not prescribed under the *EBR*, and so the ministry was not obligated to post a notice on the Registry. However, the notice provided an important public service.

The ECO is pleased to observe that most notices posted during this reporting period explained specifically why it was appropriate to post an information notice on the Registry as opposed to a regular notice seeking public comment.

The ECO is encouraged that MOE is providing much clearer information about the environmental assessment approvals or exemptions under the *Environmental Assessment Act* referred to in most of its information notices. However, several notices posted by other ministries during this reporting period failed to provide an adequate level of detail. The Ministry of Municipal Affairs and Housing should ensure that all of its notices about Minister's Zoning Orders clearly identify the municipality in which the Order applies. MNR updated a notice about an Ontario Fishery Regulation, but the notice did not clearly indicate what information was new or changed. *(For mininstry comments, see page 198.)*

Exception Notices

The *EBR* allows ministries, in very specific circumstances, to post "emergency exception notices" or "equivalent public participation exception notices." Ministries are able to post an exception notice under section 29 of the *EBR*, when the delay in waiting for public comment would result in danger to public health or safety, harm or serious risk to the environment, or injury or damage to property (the "emergency" exception). Second, ministries can post an environmentally significant proposal as an exception notice under section 30 of the *EBR*, when the proposal will be or has already been considered in another public participation process that is substantially equivalent to the requirements of the *EBR*.

During the 2003/2004 reporting year, MOE posted 13 emergency exception notices. MNR posted 26 equivalent public participation exception notices.

The ECO reviews whether ministries use exception notices appropriately and considers whether the notices are clear and complete. Please refer to Section 3 of the Supplement to this report for a discussion on the appropriate use of exception notices and on the components of a quality exception notice. The Supplement also provides a more detailed description of and comment on each notice.

This year, there were several cases in which the use of the emergency exception notice by the Ministry of the Environment did not appear to have been warranted. In April 2003, MOE used an exception notice to inform the public that it had passed a new regulation under the *Ontario Water Resources Act* prohibiting the issuance of certain types of new permits to take water (PTTW) in the Niagara Escarpment and the Oak Ridges Moraine until

August 31, 2003. In August 2003, MOE posted a second emergency exception notice indicating that it had issued an amending regulation to extend the prohibition to March 1, 2004. In December 2003, MOE used an emergency exception notice to inform the public that it had issued a regulation establishing a moratorium on new and expanding PTTWs for all water takings located in southern Ontario and in areas for which Conservation Authorities have been established in northern Ontario.

MOE did not adequately explain why emergency exception notices were warranted in all of the above cases. In other words, the ministry did not explain how the delay in waiting for public comments would result in danger to public health or safety, harm or serious risk of harm to the environment, or injury or damage to property. The ECO is aware that MOE received numerous comments about the third regulation described above and about the failure of MOE to consult on it from concerned stakeholders and members of the public.

In some of MOE's emergency exception notices – including those for instruments issued to waste disposal sites under s. 27 of the *Environmental Protection Act* – the ministry failed to indicate the date on which its decisions took effect. Some notices posted during this reporting period also failed to indicate the date on which the decision was made. Several notices failed to provide contact information and/or a contact name.

In some cases, there were delays in posting emergency exception notices, such as for MOE's decision to amend the certificate of approval (C of A) for a cogeneration plant in a health science complex. The amendment increased the permitted electricity output of the plant to help address the emergency electricity supply conditions that existed immediately following the power outage in Ontario in August 2003. The notice was posted over one-and-a-half months after the effective date of the amended C of A. Because the Registry notice was delayed, local residents were prevented from becoming aware of the increased emissions in a timely manner.

Late Decision Notices

When ministries post notices of environmentally significant proposals for policies, Acts, regulations or instruments on the Environmental Registry, they must also post notices of their decisions on those proposals, along with explanations of the effect of public comment on their final decisions. But sometimes ministries either fail to post decision notices promptly or do not provide the public with updates on the status of old, undecided proposals. In those cases, neither the public nor the ECO is able to tell whether the ministry is still actively considering the proposal, has decided to drop the proposal, or has implemented a decision based on the proposal while failing to post a decision notice. This reduces the effectiveness of the Registry, and may make members of the public reluctant to rely on the Registry as an accurate source of information.

While there is no legal requirement that ministries provide updates on old undecided proposals, it is helpful to the public. The ECO encourages ministries to post decision notices stating that the ministry has decided not to proceed or has postponed a particular decision. This action is more informative than allowing original proposal notices to languish on the Registry for years. The *EBR* requires the ECO to monitor ministries' use of the Registry, and specifically requires the Environmental Commissioner of Ontario to provide a list of all proposals posted during the reporting period for which no decision notice has been posted. The list is included in the Supplement to the annual report.

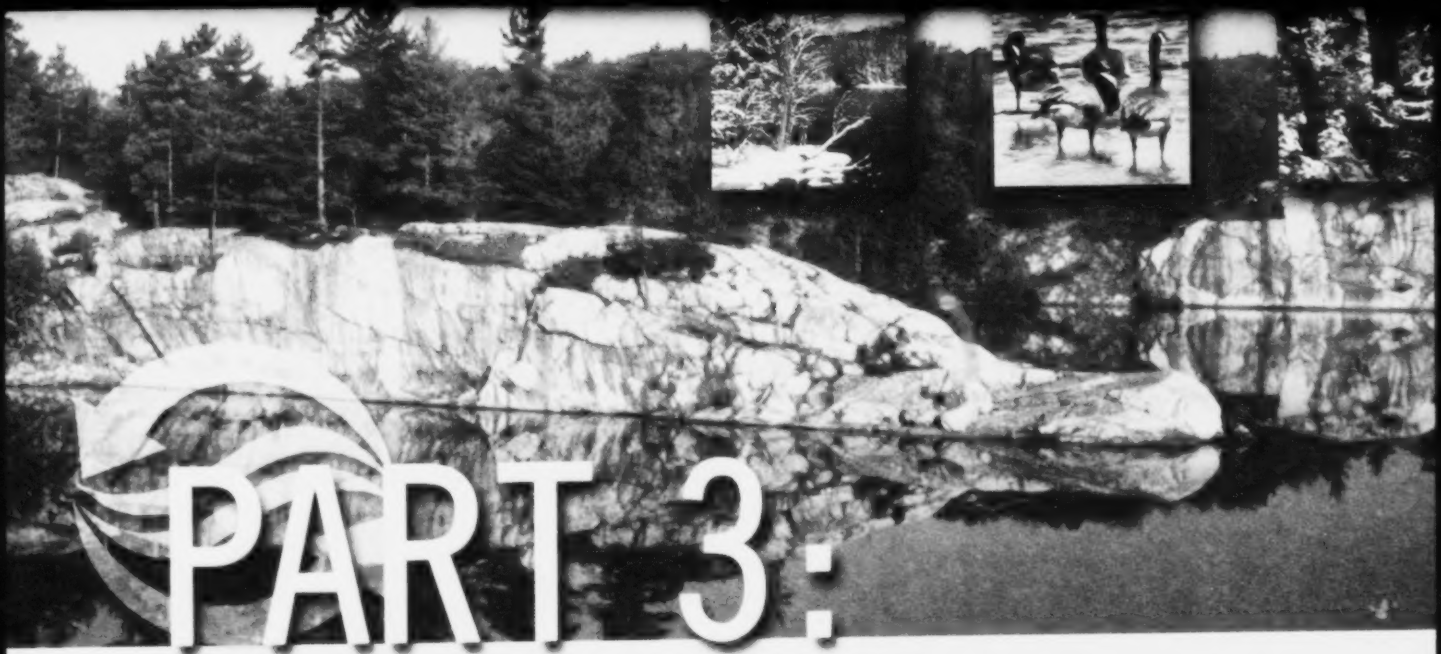
The ECO periodically makes inquiries to ministries on the status of proposals that have been on the Registry for more than a year and suggests they post either updates or decision notices. Below is a list of selected proposals for policies, Acts and regulations posted before March 31, 2003, and still found on the Registry in April 2004. Ministries had provided neither a decision notice nor an update for these proposals as of April 1, 2004. Some of these proposals were posted as far back as 1997 and 1998, and some were flagged by the ECO in previous annual reports. Yet ministries did not address them in this reporting year. The ECO urges ministries to update the public and the ECO on the status of these proposals.

Ministry of the Environment

RA7E0020.P	Amendments to the Industrial Minerals Sector Regulation (O. Reg. 561/94) (1997/12/30)
PA8E0029	Proposed 1998 Model Sewer Use By-law (1998/06/16) (see pages 35-41)
PA02E0007	Protocols for Updating Certificates of Approval for: Sewage Works; Water Works; Air Emissions; and Waste Management (2002/05/30) (see pages 160-171)

Ministry of Natural Resources

PB8E2021	Statement of Conservation Interest for the Tikamaganda Conservation Reserve (1998/11/04) (See also pages 41-47)
PB00E6001	Policies and procedures on aquaculture under the *Fish and Wildlife Conservation Act (FWCA)* and regulations (2000/02/04) [see pages 126-128]
PB01E7003	Independent Forest Audit Program – Planned Changes (2001/12/07) [see pages 129-131]



PART 3:

Significant Issues

Every year the Environmental Commissioner of Ontario focuses special attention on a number of environmental issues that have been the subject of recent applications under the *Environmental Bill of Rights* or have arisen in the course of the ECO's review work. Our goal is to highlight certain issues that require prompt attention and improved handling by Ontario ministries. This year, the theme of the ECO annual report is "Choosing our Legacy." Thus, many of the issues selected for special scrutiny fall under the jurisdiction of the Ministry of Natural Resources, a ministry that must play a vital role in protecting our natural heritage. For example, we look at the protection of forests on private lands in southern Ontario, which poses a special challenge for government agencies, land owners and organizations trying to preserve biodiversity. We also highlight inadequate Parks Management Planning by MNR and the failure of several government ministries to develop a sound approach to invasive alien species.

Other topics include sewer use bylaws, and the extensive use of the s. 32 *EBR* exception by a number of prescribed ministries related to environmental assessment approvals. Updates in this section include also MNR's efforts to improve compliance with environmental laws at aggregate operations, the ministry's announcement of additional regulatory protection for wolves living in central Ontario, and the Ministry of the Environment's efforts to develop sound environmental monitoring programs.

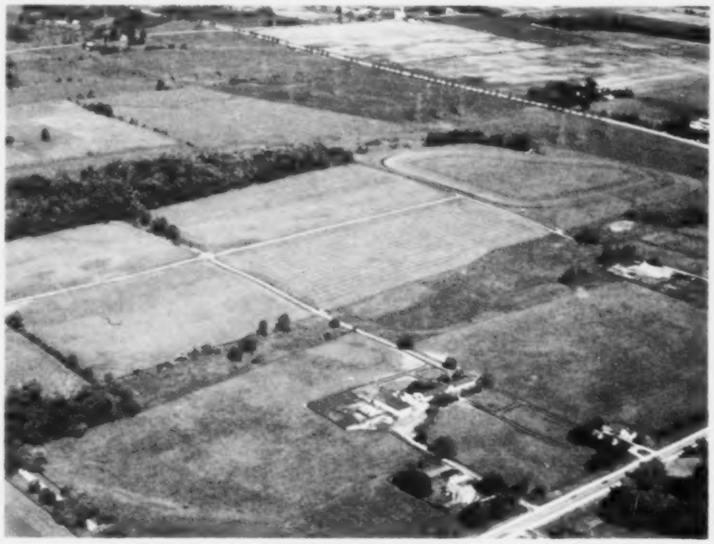
Southern Ontario's Forests: Problems on the Landscape?

Introduction

Southern Ontario has had a long history of intensive land settlement and deforestation. Much of the land in this part of the province is held privately or by municipalities. Today, a substantial amount of the forest cover in southern Ontario exists because private landowners maintain woodlands, and municipalities and Conservation Authorities maintain forested sites. The provincial government holds less property in the area lying south of Algonquin Park than in any other part of the province. It has, however, provided financial and technical support to many municipalities to establish forest sites. Site ownership, however, usually rests with the municipality.

Consequently, one of the most effective means for the provincial government to maintain forest cover in southern Ontario has been to work with private landowners, Conservation Authorities, municipal governments and non-governmental agencies to ensure support and incentives are available for good forest management. Indeed, provincial support for afforestation and woodland management in this part of the province has existed for nearly as long as the Province of Ontario, starting with *An Act to encourage the Planting of Trees along Highways* in 1871. Numerous Acts passed by the Ontario Legislature between the 1920s and 1960s continued to create an increasingly significant role for the province in forest management in southern Ontario. (For more details, see the Supplement to this report, pages 361-362.)

There are many reasons why afforestation and woodland maintenance are important – prevention of soil erosion, dust and snow suppression along roadways and rural aesthetics, as well as habitat, shelter and food supply for wildlife. Woodlands perform important ecological and hydrological functions, but are also subject to numerous stresses.



Southern Ontario Woodlands: Their Relation to Current Environmental Issues

Biodiversity: Southern Ontario is Canada's most ecologically diverse region, having a wider array of plant and animal species per unit area than any other part of the country. It includes species that are representative of many different ecosystems, such as prairie grassland and boreal and temperate deciduous forests. The area is currently under-represented when measured against the international target of protecting 12 per cent of the world's natural spaces. Protecting wooded areas in this region could make a significant contribution to biodiversity in Ontario and Canada. (See also Creating a Biodiversity Framework for Ontario, pages 49-53, in our 2002/2003 annual report.)

Climate Change: Woodlands are critical for both mitigating climate change and coping with its effects. Tree growth removes carbon dioxide, a major greenhouse gas, from the atmosphere, potentially reducing its buildup and slowing the onset of climate change. Wooded areas, particularly those along waterways, stabilize shorelines and buffer the effects of storm surges. Storm intensity and frequency are projected to increase with climate change.

Invasive alien species: Southern Ontario woodlands have long been under threat from invasive alien species. Over the past century, American chestnut and elm trees were devastated by chestnut blight and Dutch elm disease. The flowering dogwood tree continues to be threatened by an alien fungus. More recently, the Asian long-horned beetle and the emerald ash borer threatened certain hardwood species and, had measures not been taken, might have devastated entire wooded areas. Preventing the spread of an infestation, once started, involves tree-cutting, which reduces forest cover. (For more on invasive species, see pages 47-52 of this report.)

In this reporting year, the ECO reviewed two programs of the Ministry of Natural Resources that have affected forest retention in southern Ontario: the Agreement Forest Program (AFP) under the *Forestry Act*, and the Managed Forest Tax Incentive Program (MFTIP). The former program helped to create forested areas on municipal lands in southern Ontario, while the latter provides an incentive for proper forest management on private lands.

Agreement Forests

In southern Ontario, many tracts of forest were established through agreements between the provincial government and another party, normally a municipal government or Conservation Authority, usually on municipally owned lands, and often with the financial or managerial support of the province (i.e., the Ministry of Natural Resources). Typically, agreement forests were started to reclaim land that had been cleared for agriculture but which was not being used nor was ideally suited for this activity. Some of these lands were abandoned and had associated environmental problems, such as soil erosion and flooding. According to MNR, the Agreement Forest Program included management planning, marking, marketing, and other duties to ensure effective rehabilitation of the lands.

The province has been actively setting up agreement forests for over 75 years. Under the AFP, MNR established contracts with 28 municipalities, 26 Conservation Authorities, a federal commission, and a publicly incorporated company. The agreements encompassed approximately 130,000 hectares of land and resulted in the planting of approximately 147.5 million trees in southern Ontario overall. Assistance from the province included monetary incentives for planting trees and free nursery stock, and later, help with managing the growing forests. According to MNR, the program's reforestation activities have contributed to restoring biological diversity on these lands. However, in 1994, MNR gradually began to return responsibility for agreement forests to the respective landowners, and at this point, the ministry is no longer entering into these agreements with municipalities.

Many of MNR's AFP partners have adopted the responsibility of managing these forests and have the expertise to carry out proper forest management. However, the ECO is concerned that some municipalities may face situations in the near future that could place these forests in jeopardy. Budget pressures could limit the ability of a municipality to tend properly to a forest. Municipalities could receive tempting offers from land developers, since many forests would make attractive residential or recreational settings. The *Forestry Act* includes the provision that if a provincial grant was used to obtain the land for an agreement forest, then permission must be sought from the Minister of Natural Resources for its sale. If and when these grant lands are sold, at least 50 per cent of the proceeds of the sale must be directed to the local municipal or conservation authority and the balance to the province. Even with these checks in place, sales could still proceed.

There are signs of development pressures and other threats to the integrity of agreement forests. For example, in eastern Ontario in 2003, planning was under way for a tourism-related theatre facility within the Larose Forest, an agreement forest. The ECO has also received expressions of concern from environmental organizations that smaller municipalities may not be able to manage or protect these forested sites properly. In a central Ontario regional municipality, staff noted that in the years preceding MNR's withdrawal from agreement forest management, some of the area's agreement forests suffered neglect. The same regional staff noted concerns such as the need to remove hazard trees and risks associated with mountain-biking at one site. In general, municipalities would like agreement forests to be financially self-sustaining. Although some revenue can be derived from appropriate and selective harvesting, many municipalities could face new costs – for instance, signage, maintenance and consulting fees – by adopting agreement forest responsibilities.

In the long run, MNR's retreat from the management of agreement forests may not bode well for these forests, especially for their ecological attributes. MNR's retreat also represents a significant shift in the province's approach to forest management in the history of Ontario.

Managed Forest Tax Incentive Program

In January 1997, the Minister of Natural Resources announced a property tax reduction system for eligible forest properties called the Managed Forest Tax Incentive Program (MFTIP). According to MNR, the essence of MFTIP was to ensure that forests that are actively managed by their landowners, and that are more than four hectares (10 acres) in size, would be assessed as equivalent to farm land and taxed at the rate of 25 per cent of the municipal tax rate for residential properties. The changes, which began with the 1998 tax year, were meant to encourage landowners to be good managers, or stewards, of private forest land. MNR indicated that MFTIP would take the place of the Managed Forest Tax Rebate Program, which had been canceled in 1993 and then reinstated in February 1996. MNR's media release at the time said that the reinstatement of the Managed Forest Tax Rebate Program was a temporary measure and that long-term financial incentive measures for managing private forests would be provided through MFTIP. The program currently provides protection to over 720,000 ha of forests on more than 10,400 properties.

At its core, MFTIP was designed to provide managed forest owners with a 75 per cent reduction in property taxes on eligible managed forest properties – the very same reduction that is applied to agricultural lands. Identical treatment is essential to prevent a taxation disparity between forestry and agricultural land use, which would give owners an incentive to remove trees from the land in order to have the land taxed at the agricultural rate.

In fall 2003, the ECO received an *EBR* application requesting that the Ministry of Natural Resources undertake a review of the MFTIP program. The application outlined managed forest owners' concerns about the program, particularly certain problems that began to intensify between late 2002 and early 2003. The applicants alleged that at that time, the Municipal Property Assessment Corporation (MPAC), a municipally funded, not-for-profit corporation that assesses the value of property in Ontario for taxation purposes, began changing its methods of assessing the value of managed forest properties such that landowners were being required to pay substantial increases in property taxes. The changes in 2003, according to MPAC, were made at the direction of the Ministry of Finance, which has authority over the *Assessment Act*, used by MPAC for property tax assessment. According to MPAC, it was directed to "determine the assessed values of managed forest properties based on sales of managed forest properties from one managed forest property owner to another." MPAC advised MNR, the Ontario Forestry Association (OFA), and the Ontario Woodlot Association of this revision in methodology.

According to OFA, the effect of changes to MPAC's property value assessment methodologies will result in the demise of the MFTIP program. If many MFTIP-participating landowners do not receive taxation treatment equivalent to that for agricultural land, then forested lands in southern Ontario could undergo clearing and transformation of land use. OFA wrote a number of letters to the Minister of Finance and met with staff of that ministry between late 2002 and the end of 2003. The Ministry of Natural Resources also wrote to the Ministry of Finance, largely supporting the concerns of OFA, noting that:

> . . . MPAC's most recent valuation procedures (April 2003) are contrary to the government direction for MFTIP. The procedures indicate that farmland productivity values will not be used in the assessment of properties in the MF property class. Rather, assessment of eligible properties will be determined by sales comparison. This is of particular concern for land located near urban and/or recreation areas where woodland values are elevated because of market forces.

The Minister of Finance wrote to OFA in June 2003, responding to many of the concerns the association had raised over the preceding six months. However, OFA's reply to MOF in July 2003 indicated that managed forest property owners were still facing key issues that were undermining the goals of MFTIP.

In autumn 2003, meetings were held between representatives of MPAC, MOF and MNR to deal with issues arising over the assessment of managed forest properties. Then, at the end of December 2003, MNR notified the ECO that the ministry would be undertaking the *EBR* application for review of the MFTIP program filed with the ECO earlier that fall.

Early in 2004, some managed forest landowners became concerned that their assessment issues would not be resolved by March 31, 2004, in time for the next tax year and assessment. Some landowners who had in past provided free public access to their lands for snowmobiling purposes closed their trails for snowmobile access in early 2004. Free public access to private forest lands has often been granted by managed forest owners since they are receiving public support in the form of a tax reduction to manage the forests.

MNR's review of the MFTIP program was slated to take 90 days to complete, and the ministry anticipated a response by late April 2004. MNR wrote to the ECO, explaining that more time was required to prepare a response and that it would not arrive until May, and then June 2004. This dispute remains unresolved as of May 2004.

Southcentral Region Forest Strategy

In 2003, MNR finalized its Southcentral Region Forestry Strategy, which covers roughly all of the area in Ontario south of Algonquin Park. The strategy states that MNR's priorities for this region are the following: MNR will manage forest information, provide landscape planning leadership, strengthen strategic partnerships, promote sustainable forest management practices, recognize the forest sector of the economy, provide leadership in developing and transferring knowledge, engage in forest awareness, provide client services, and act as responsible stewards of Crown forests. These priorities are likely to be helpful to private or municipal foresters. The strategy does not, however, resolve the key issues of managed forest owners, nor does it involve MNR in any further intensive management of agreement forests. It should also be noted that there is very little Crown forest in southern Ontario, which limits the amount of direct involvement by MNR in forest management in this area.

Summary

The importance of woodlands, agreement forests and other forms of forested tracts of land in southern Ontario has long been recognized by the province. A century of provincial legislation, programs and efforts have been dedicated to afforestation and woodland preservation in this part of the province. The outcome of these measures – hundred of thousands of forested hectares – is a significant legacy indeed.

The ECO is greatly concerned about the future of agreement forests and the pressures faced by municipal and private forest managers. The province's current policy approaches are creating the financial incentive to remove trees from lands in southern Ontario. There is a continuing need for strong and effective measures to protect and enhance the forested landscape of this region. In the case of MFTIP, the provincial bodies involved need to demonstrate greater resolve to ensure the program continues to achieve its goals. *(For mininstry comments, see page 198.)*

Recommendation 2
The ECO recommends that MNR ensure that the Managed Forest Tax Incentive Program does not provide a financial incentive to clear forested tracts of land in southern Ontario.

Sewer Use Bylaws in Ontario

Background

There are at least 12,000 industrial, commercial and institutional facilities hooked up to municipal sewer systems across Ontario. These facilities are extremely diverse – including large metal finishing plants, airports, pigment and coating manufacturers, food processors, hospitals, electroplaters, small photo labs, dry cleaners and local dentists' offices. Collectively, they release a wide range of substances, including toxic metals and persistent organic pollutants, to sewer systems and to downstream municipal sewage treatment plants. Ontario's sewage treatment plants (STPs) are chiefly designed to treat domestic human waste, and are not equipped to deal with metals or persistent organics. Therefore, some of these substances are only partially degraded in STPs; others tend to accumulate in sewage sludges, and yet others pass untreated into the final effluent and the receiving lake or river. In some cases, these substances may in fact interfere with sewage treatment processes, by poisoning the beneficial microorganisms that are employed to break down human waste. (For further information on STPs, see pages 167-168, and also the ECO's 2002/2003 annual report, pages 35-49.)

How much toxic waste is discharged to Ontario sewers?

It is hard to quantify the current industrial discharges to Ontario sewer systems, or to say what percentage of these discharges are toxic or hazardous. The Ministry of the Environment has not conducted recent surveys or prepared updated estimates, and currently takes the view that discharges to sewers are a municipal responsibility. However, MOE did plan to control sewer discharges over 10 years ago, and estimated then that Ontario waterways received a combined total of three tonnes of metals and 0.05 tonnes of organic compounds of concern on a daily basis from Ontario's STP discharges. As well, an estimate prepared by the Ontario Waste Management Corporation in the early 1990s indicated that about 380,000 tonnes of hazardous wastes were discharged to sewers each year in Ontario.

More up-to-date information can be gleaned from the National Pollutant Release Inventory (NPRI), maintained by Environment Canada. Starting in 2002, the NPRI program began to require certain large STPs to report their releases of certain pollutants, especially metals such as mercury, cadmium and lead. The data clearly show that these plants release significant quantities of metals to waterways, and that sewage sludges also contain significant loadings of metals. The following table summarizes the annual loadings for certain metals from four large Ontario STPs.

Selected Releases by four Ontario Sewage Treatment Plants (NPRI data for 2002)

STP location	Mercury (kg)		Cadmium (kg)		Arsenic (kg)		Lead(kg)	
	to water	*to sludge*	*to water*	*to sludge*	*to water*	*to sludge*	*to water*	*to sludge*
Hamilton (Woodward Ave.)	14.45	0.169	127.00	60.14	127.00	58.14	2545.0	1468.5
Toronto (Ashbridges Bay)	56.80	27.9	43.00	73.60	258.4	32.9	859.5	1800.9
Ottawa (R.O. Pickard)	0.005	32.64	0.02	79.93	0.03	64.24	0.051	848.5
Sudbury	16.09	0.85	24.12	34.08	232.83	3.0	51.68	55.32

What are sewer use bylaws?

Since STPs are not designed to treat metals or persistent organic pollutants, the best environmental solution is to prevent these types of pollutants from entering municipal sewer systems in the first place. The *Municipal Act, 2001*, gives municipalities the authority to enact sewer use bylaws to regulate what and how much is discharged to their sewer systems. Depending on the municipality, these bylaws may set limits on just a few basic parameters, such as temperature and pH, or they may set out rules for a long list of pollutants and may require sewer users to think about pollution prevention. Once sewer users begin to focus their attention on what is going down their drains, they can in most cases find ways to reduce these pollutants. They may change manufacturing processes, reformulate products, or find ways to capture and reuse wastes. In many cases, industries have found that pollution prevention projects tend to pay back in a short time.

The past role of MOE

Until the mid-1990s, MOE took an active role in promoting municipal sewer use bylaws and encouraged municipalities to adopt more advanced and stronger bylaws. Unfortunately, as detailed below, MOE has almost completely backed off this responsibility since 1998, and has left municipalities to decide for themselves what their sewer use bylaws should look like, how they should be enforced, and, indeed, whether to have sewer use bylaws at all.

The most ambitious MOE plan to control sewer use was the Municipal Industrial Strategy for Abatement (MISA), announced in 1988. According to a 1994 MISA working paper, MOE proposed that specified municipalities would be required to implement and enforce a sewer use control program. MOE also proposed a comprehensive sewer charge and over-strength surcharge system, the development of a mandatory certification program for municipal sewer use inspectors, as well as pollution prevention initiatives. MOE also held a series of training courses for municipal enforcement staff, and completed demonstration projects with five municipalities. But for various reasons – in particular, the economic recession of the early 1990s – the municipal side of MISA was never rolled out.

MOE's past work on sewer use bylaws

When MISA was first launched in 1988, MOE also published the 1988 model sewer use bylaw (itself an advancement over a 1975 version), which municipalities were free to adopt, revise to their own circumstances, or ignore. Many municipalities decided to enact their own adaptations of the 1988 model bylaw.

Ten years later, in 1998, MOE posted an updated version of the bylaw as a proposal on the Registry for a 60-day comment period (PA8E0029). MOE developed this proposal in consultation with a group representing Ontario municipalities of various sizes. The proposed improved bylaw was still optional for municipalities, but featured a simplified modular format, more stringent limits for cadmium, lead and mercury, and new limits for 10 organic substances. It also included a new approach for storm water requirements and the application of pollution prevention to storm sewers. However, MOE has left this proposal languishing on the Registry for the past six years, despite urging from the ECO to move forward.

Stakeholder views on MOE's model sewer use bylaw

MOE received 34 public comments on its 1998 proposal to update the model sewer use bylaw, and forwarded copies of these comments to the ECO. Nineteen municipalities had commented. Both small and large municipalities were fairly supportive of the proposed direction, and several said they would adopt the bylaw, once finalized. In fact, most municipalities recommended strengthening the bylaw in some way, by adding limits or outright prohibitions on additional parameters.

MOE received less positive comments from three industry associations, which shared concerns about lack of prior consultation, and noted that the limits were too onerous. The environmental groups generally recommended stronger pollution prevention provisions, and one submission noted that the City of Toronto was about to pass a precedent-setting bylaw incorporating pollution prevention planning. (Toronto's bylaw is now in place.) Environment Canada noted that many other substances could be considered for limits, and attached a lengthy table of discharges to Ontario sewer systems, as reported by industrial sewer users to NPRI in 1996. For example, 21 facilities reported discharging nickel compounds to Ontario sewers, for a total of 9,000 kg, and 26 facilities discharged chromium compounds, for a total of 5,680 kg. Over 500,000 kg of ethylene glycol, the de-icing agent, was discharged to Ontario sewers by 21 facilities.

Judging from public comments, it appears that MOE's proposed 1998 bylaw took a middle road: it was considered adequate by the municipalities that would be implementing it, too onerous by industry, and too weak by environmental groups. It also appears that MOE staff did review public comments, and worked toward further revisions of the model bylaw. With further public consultation and analysis, MOE could well have crafted a model bylaw that balanced the various interests and concerns. At the very least, MOE could have moved forward on a promised guidance document for municipalities.

MOE's current position

MOE takes responsibility for ensuring that STPs receiving industrial waste comply with ministry legislation and policies. But in practice, MOE regulates only a few conventional parameters in STP effluent, such as biochemical oxygen demand, total suspended solids and total phosphorus. Metals and persistant organic pollutants are not regulated in STP effluents, and are rarely monitored. With regard to sewer use, MOE's current view is that "Waste discharges by industrial facilities to sanitary sewers are the responsibility of the owner/operator of the sewage system." Municipalities that request advice from MOE on sewer use bylaws are referred to the 1988 model, which is widely accepted to be out of date. MOE has also acknowledged that it is not directly monitoring or applying a policy, currently on the ministry's books as Procedure F-5-1, that states quite clearly:

> "In selecting a sewage treatment process, consideration must be given to industrial waste inputs to ensure that the sewage treatment process will be compatible with the waste requiring treatment. Pre-treatment of industrial wastes may be necessary. In all cases, sewer use bylaws should be in effect and under enforcement to control the wastes being discharged to the sewer system by municipalities."

Although Procedure F-5-1 may no longer reflect MOE's current approach, it shows that in the past the ministry recognized the importance of sewer use bylaws, and the value of pre-treating industrial wastes. MOE states that the series of F-5 Procedures are under internal review, but there is no timeline for completion of this review, nor is there a plan for public consultation.

In effect, MOE has quietly suspended or backed away from its existing policy without articulating a new policy. This does not serve the interests of transparency or environmental protection. Instead, MOE should clarify that it stands by the existing Procedure F-5-1, and affirm that municipal sewer use bylaws remain an important tool for the ministry by posting an update on the six-year-old Registry proposal.

An MOE-led program to strengthen municipal sewer use bylaws would help to meet several commitments the ministry has made related to sewage effluent. For example, in March 2002, Ontario signed a five-year agreement with Environment Canada under the Canada-Ontario Agreement (COA) Respecting the Great Lakes Basin Ecosystem. Under COA, Ontario promised to:

- provide municipalities with technical and/or financial help in pollution prevention and control planning in Areas of Concern.
- influence reductions in discharges from MISA sectors, and examine and implement new policies and regulations to manage industrial discharges not currently captured under MISA.
- develop best practices guidance documents to help municipalities identify and reduce sources of harmful pollutants and other contaminants discharged to sewers.

MOE has also promised to implement Justice O'Connor's recommendation #32 of the Walkerton Inquiry, which states that "the provincial government should support major wastewater plant operators in collaborative studies aimed at identifying practical methods of reducing or removing heavy metals and priority organics (such as endocrine disruptors) that are not removed by conventional treatment."

So far, MOE has responded to these commitments with very low-key research projects, but no clear goals or public consultation plans and few timelines. For example, a single MOE staff person has been assigned to conduct a literature search of toxic substances discharged by various categories of industrial sewer users. Upon completion of the literature search (possibly by the end of summer 2004) the ministry will decide whether to conduct selective monitoring of final effluents of sewage treatment plants. The ministry is not contemplating monitoring of effluents of sewer users, and plans instead to rely on municipalities to lead such work voluntarily. Any monitoring program would run for at least a year before the ministry planned any policy approaches.

Current state of municipal sewer use bylaws in Ontario

A review of sewer use bylaws of selected Ontario municipalities found considerable room for improvement:

- An estimated 260 Ontario municipalities (out of a total of 446) had sewer use bylaws in the year 2000. (Some municipalities did use the MOE model sewer use bylaw as a guide for drafting their own bylaw.)
- In some municipalities, sewer use bylaws haven't been updated for a number of years. In some cases, discharge limits have not changed for many years.
- A few municipalities (such as Pembroke) do not have discharge limits in their sewer use bylaws, making their pollution control effectiveness very questionable.
- Only a handful of municipalities, in particular Toronto and Kingston, have stringent limits on a wide range of parameters. (Toronto has mandatory pollution prevention plans for sewer users.)
- There is considerable variability in the limits set on parameters. For example, Toronto and Kingston have a limit for mercury that is 10 times more stringent than the limit set by Hamilton, London or North Bay, while Sault Ste. Marie and Sudbury do not have a discharge limit for mercury at all.

Conclusions

The environmental need to control toxic substances discharged to sewers has been thoroughly documented, and the new NPRI data underscore the fact that large quantities of toxic substances continue to flow into sewers and on into Ontario lakes and rivers. There is great scope for updating, strengthening and harmonizing municipal sewer use bylaws in Ontario. MOE is the regulator for Ontario sewage treatment plants and should be acting on its existing policies to promote municipal sewer use bylaws. Instead, although recognizing the need for stronger sewer use bylaws many years ago, MOE has made little progress.

As noted above, MOE has made a number of commitments to work toward improving the effluent quality of sewage treatment plants. Sewer use bylaws will need to be part of the solution, and MOE needs to demonstrate leadership to ensure that this tool is employed to the best environmental advantage. *(For mininstry comments, see page 198.)*

Recommendation 3
The ECO recommends that MOE act on its existing policies to ensure that municipal sewer use bylaws are in effect, reflect current environmental standards, and are enforced across Ontario.

Needed: Better Planning for Protected Areas

Research undertaken by the ECO during the past year into the planning and management of Ontario's provincial parks and conservation reserves by the Ministry of Natural Resources has revealed several areas of serious concern. Specifically, the ECO has examined whether planning is actually taking place for all of Ontario's protected areas, whether the public has been involved in the planning process, and whether existing plans are being reviewed in a timely manner.

Protected areas are the very foundation of any concerted effort to conserve biodiversity. The loss of biodiversity is a global problem, widely acknowledged as one of the most critical environmental challenges facing the planet. MNR is responsible for two main types of protected areas – provincial parks and conservation reserves – that can help meet this challenge.

Among the most significant threats to biodiversity are the cumulative impacts of the commercial, industrial, recreational and cultural activities of humans. Biodiversity can also be seriously affected by pollution, climate change, and the introduction of alien species (see pages 47-52). Given these serious environmental impacts, the establishment of protected areas is more important than ever.

Protected areas are places meant to maintain and restore ecological and natural heritage values. These places should be havens for wild species, conserving the diversity among and within them. They also should protect both small and large ecological systems, ranging in scale from a rare wetland ecosystem to a broad forested landscape.

However, the challenge for protected areas goes well beyond simply drawing lines on a map – sometimes called a "paper park" – which provides little actual protection. These areas require sound planning and ongoing management (see also pages 94-99). Management plans are meant to translate provincial policies into detailed statements of government intent – the rules to be followed – for each individual protected area. According to MNR, plans for protected areas are intended to provide:

- A definition of the role, significance and classification of a park within the provincial system.
- A statement of policy and zoning for the protection, planning development and management of the resources and attributes of the park.
- Assurance that the planning, management and development of the park is compatible with the protection of the environment and is responsive to the public interest.
- Guidance for the preparation of subsequent plans required to implement park policies and achieve program objectives. Plans must be written for natural resources, client services, site development and operations.
- A rationale and priorities for the funding of capital development and park operations.
- A record of public consultation and input into the planning process.
- A basis for the ongoing monitoring of the development and management of the park.

Provincial Parks

Status of planning and management

As of April 2004, Ontario had 314 provincial parks regulated under the *Provincial Parks Act*, covering approximately 76,000 km^2. There are six general classes of provincial parks: wilderness, natural environment, waterway, recreation, historical, and nature reserves. Provincial parks also are classified as to whether they are operating (with permanent staff and facilities) or non-operating. The Ontario Parks branch within MNR administers provincial parks.

The Minister of Natural Resources, under the authority of the *Provincial Parks Act*, has the discretionary power to determine whether or not to create management plans for provincial parks. However, ministry policy states that a management plan will be developed for every individual park.

Unfortunately, the majority of provincial parks in Ontario do not have approved management plans. Only 125 out of 314 provincial parks (40%) currently have an approved management plan. Ontario's Provincial Auditor raised similar concerns in his 2002 annual report, noting then that only 117 of 277 provincial parks (42%) had approved management plans in place. At the current rate of approvals, it will take MNR another half-century to complete management plans for the remaining parks – assuming that no new parks are created.

The proportion of non-operating parks lacking management plans is disturbing. Only 39 out of 210 non-operating parks (19%) have approved management plans. These parks tend to be smaller in size than operating parks, with fewer visitors. However, size and visitor usage are not determinants of ecological significance.

Management plans are equally important for non-operating provincial parks, especially for establishing ecological monitoring programs. It should be noted that these protected areas generate little, if any, revenue for the province since they do not possess campground facilities. According to MNR, the majority of non-operating parks are visited only once a year or not at all by ministry staff. Further, no funding is allocated for 88 per cent of these protected areas. The ECO cautions MNR that it is not feasible to plan and manage all of their protected areas based on a cost-recovery economic model.

In 2003, the ministry did develop a risk-based assessment strategy for the better planning and management of non-operating provincial parks. However, this strategy notes that without more staff it will take a number of years to visit and assess all non-operating parks, and ministry staff may in fact never visit them all. MNR's view is that increased staffing levels would allow Ontario Parks to make informed decisions and set priorities, as well as ensure the collection of baseline data for all non-operating parks.

Reviews of existing plans

The *Provincial Parks Act* does not address the review of existing management plans, but ministry policy requires that it take place every 10 years. However, 90 of the 125 (72%) existing management plans are already 10 years old or more, and MNR has reviewed and updated only nine provincial park management plans in the last decade. The Provincial Auditor noted two years ago that 68 of 117 (58%) management plans were 10 years old or more. Clearly, there is an increasing number of parks with outdated management plans that require review by the ministry and the public.

MNR did dramatically expand the parks system in 1999, based on Ontario's Living Legacy (OLL). This was a commendable act on the part of the province, creating 61 new provincial parks and increasing the size of 45 others. However, even if these important additions had not occurred, the majority of pre-existing parks would still have lacked management plans – and the plans for the minority that had them would still be outdated.

Public consultation

When Ontario Parks actually does initiate the development of a management plan for a provincial park, the ministry does a commendable job of using *the Environmental Registry* to notify and consult the general public. MNR posts multiple notices with lengthy comment periods for public consultation for each new management plan. The ECO believes that other divisions within MNR and other ministries should emulate this approach to consulting the public.

Conservation Reserves

Status of planning and management

As of April 2004, Ontario had 234 conservation reserves, regulated under the *Public Lands Act* and covering approximately 9,000 km^2. The vast majority of these sites were created as a result of OLL; an additional 68 areas are yet to be established. In MNR's view, conservation reserves offer protection for natural heritage areas on public lands, while permitting many traditional uses such as hunting to continue. The Field Services Division within MNR, at the district office level, administers conservation reserves.

The *Public Lands Act* was not intended or designed to protect natural heritage features such as sensitive habitats or important species, and thus it is not a good public policy mechanism for protecting these values in conservation reserves. MNR has recognized this problem in an internal review. Ministry staff have expressed serious concerns about the existing policy and program direction, stating that it was out of date and that the needs of the conservation reserves program have outgrown the original direction.

Currently, plans are not required for conservation reserves, since the applicable section of *Public Lands Act* has not yet been proclaimed as law. Thus, MNR is not legally obligated to plan for conservation reserves. This problem is then further compounded, since MNR itself recognizes that at this point any existing plans will not have the force of law.

However, ministry policy requires that one of two types of management plans be developed for a conservation reserve, either a "statement of conservation interest" or a "resource management plan." The intent and purpose of these types of plans are no different from those for provincial parks – and no less important. A statement of conservation interest is the minimum level of policy direction for a conservation reserve, identifying the purpose and outlining the management intent for the area. For a conservation reserve with complex issues, the ministry develops a comprehensive resource management plan that may detail additional actions, information, and options.

Only 145 out of 234 regulated conservation reserves (62%) have approved plans, of which three are resource management plans. MNR policy stipulates that a conservation reserve will have a policy in place for its management within three years of the regulation of the site, but almost 200 were established more than three years ago.

Because of the limitations of the *Public Lands Act*, according to MNR, the only legal mechanism for protecting lands within conservation reserves is for the ministry to erect signs that prohibit certain activities. But ministry staff have acknowledged that relying solely on signs is not a workable approach, especially when there is insufficient capacity for enforcement. Other MNR staff have commented that the ministry needs to change the legislation so that it is an offence to damage the environment.

Reviews of existing plans

There is no requirement under the *Public Lands Act* for the scheduled reviews of plans for conservation reserves. Ministry policies and procedures for conservation reserves also do not address if or how often reviews should occur. However, given that environmental threats, land use patterns, and conservation priorities change over time, it is important to review the plans for conservation reserves to ensure that they remain relevant and effective. New planning may be periodically required, for example, to protect against an emerging environmental threat or to respond to a new kind of recreational activity.

Public consultation

Ministry policy recognizes that statements of conservation interest "may require some level of public consultation" and that compliance requirements of the *EBR* "will be met." However, not one of the 142 completed statements of conservation interest has been posted on the Environmental Registry for public review and comment. Despite this fact, MNR field managers have selectively consulted individuals or organizations in developing a significant number of these plans. Ministry staff have acknowledged that this approach is inadequate and that broader consultation is needed, given that statements of conservation interest may be the only planning document that is ever developed for these areas.

MNR relies on two different justifications for not consulting the general public. First, a key 1998 internal memo gives MNR staff discretion to decide whether the public should be consulted: that is, if the preparation of a statement of conservation interest merits public consultation, then it will be posted on the Environmental Registry. The ECO disagrees with MNR's position that ministry staff can decide on a case-by-case basis whether public consultation is necessary. The ministry itself has recognized that statements of conservation interest are policies, and the *EBR* requires that all environmentally significant policies should be posted on the Environmental Registry for a minimum 30-day comment period.

Second, in 2004, MNR informed the ECO that it believes that public consultation is not required if there was previous consultation on the area's protection. This position implies that site-specific planning options were a component of public consultations during the OLL planning process. However, this was not the case. OLL established new areas for protection, but it did not address the individual planning issues of each area, such as where to locate a snowmobile trail or how to protect a particular species in a conservation reserve. Furthermore, when MNR posted notices on the Environmental Registry about the regulation of the boundaries of these sites, they were posted as "exception" notices, which eliminates the opportunity for public comment.

ECO Comment

The ECO believes that the system of planning for Ontario's protected areas is in need of substantial attention. Only 38 out of 548 protected areas (7 per cent) in Ontario have approved plans that involved public consultation and that are not in need of review. Without sound planning and conscientious management, Ontario's protected areas are little more than "paper parks" – simple lines on a map.

The majority of provincial parks do not have plans, and the plans of nearly all those that do are badly outdated. Most conservation reserves do have plans, but the general public was never consulted in their development.

Only 38 out of 548 protected areas (7 per cent) in Ontario have approved plans that involved public consultation and that are not in need of review. Without sound planning and conscientious management, Ontario's protected areas are little more than "paper parks" – simple lines on a map.

In the case of provincial parks, MNR is not following its own planning requirements, and in the case of conservation reserves, few planning requirements exist. In both cases, the current legislation governing these areas gives little direction.

Ecological monitoring and effective enforcement are dependent upon management plans. However, MNR reports that almost half of all operating provincial parks do not have sufficient staff or funding to meet existing minimum standards of operation. Non-operating parks typically have no staff or funding whatsoever.

The ECO believes that the lack of public consultation on conservation reserves, in contrast to the high standard of consultation for provincial parks, may be the result of the organizational structure within the ministry. Conservation reserves are not administered by Ontario Parks, the branch within MNR responsible for protected areas, but rather by the Field Services Division. Ministry staff have expressed concern that differences exist between Ontario Parks and Field Services Division with respect to philosophy, management, and communications.

In its 2001/2002 annual report, the ECO recommended that MNR "create a new legislative framework for provincial parks and protected areas, including conservation reserves, with the mandate of conserving biodiversity." In response, the ministry acknowledged that new legislation is needed. However, MNR stated that it would not initiate a review at that time, since staff and funds were engaged in the implementation of OLL.

This year marks the 50th anniversary of the current version of the *Provincial Parks Act*. A total of eight parks existed when this legislation was enacted in 1954, but the Act now regulates 314 provincial parks. This Act does not reflect our current understanding of the ecological sciences or the role of environmental planning for protected areas. With the exception of the Kawartha Highlands Provincial Park, not one of Ontario's protected areas is legally mandated to conserve biodiversity or currently required to have a management plan.

The ECO believes that a fundamental component of new protected areas legislation should be explicit planning requirements. Planning should be mandatory for all of Ontario's protected areas, including a legal requirement for public consultation and scheduled reviews. Of equal importance are the resources available to the ministry to carry out planning, management, monitoring and enforcement. In the interim, the province should undertake a review of whether MNR has adequate resources to implement the ministry's legal responsibilities and policy commitments for protected areas. *(For mininstry comments, see page 198.)*

Recommendation 4

The ECO recommends that MNR require the preparation and timely revision of management plans for all protected areas, including provisions for public consultation.

Invasive Alien Species – A Threat to Biodiversity

Imagine Ontario's landscape without ash and maple trees, or the Great Lakes without lake trout. However, we don't have to imagine Ontario without the American elm or American chestnut. Failure to stop the spread of invasive alien species – organisms from other parts of the world – has meant that today's children no longer walk down streets lined with American elm or collect wild sweet chestnuts. These are now only memories.

Today, the emerald ash borer could cause the loss of one billion ash trees in Ontario, and the Asian long-horned beetle could bring about the loss of our national symbol, the maple tree. Residents of Essex County already know what it means to have no ash trees and residents of Vaughan, no maple trees. The urgent question today is: will Ontario's woodlands, wetlands and Great Lakes give way under the continuous onslaught of invasive alien species?

What are invasive alien species?

Alien species, also known as exotic or non-native species, are organisms such as birds, mammals, fish, insects, plants, molluscs or micro-organisms from other countries or regions that have been introduced into habitats where they are not naturally found, either today or in the past. Most alien species do not thrive, since they are poorly adapted to their new habitat. But a few species succeed and thrive, and these are called "invasive alien species." Once established, invasive alien species may out-compete native species for food and habitat, causing native species to move to another area, weaken or die. They may prey on native plants or animals, resulting in negative effects on other levels of the food chain. They may also cause an infection in a native species, weakening or killing it. In the worst case, invasive alien species can wreak ecological havoc and threaten biodiversity, potentially resulting in a scenario called "invasional meltdown."

Humans have often provided the means for these species to travel from one region to another. Some hitch a ride on our vehicles or footwear, or in our belongings. Others have used canals to move from one waterbody to another. Some of the most ecologically destructive invasive species have been dumped into the Great Lakes by ships adjusting their ballast, and others have arrived in wood packaging used to transport goods around the world. Some alien but not necessarily invasive species have been deliberately introduced into Ontario, often for economic reasons. However, some of these species have established populations in the wild through deliberate or accidental human activity, and are disrupting food chains and displacing native species. With today's lifestyle and global trade, potentially every person, mail package, vehicle, plane, or watercraft entering Ontario or traveling from one region of Ontario to another could provide an efficient means of dispersal.

Why should we be concerned about invasive alien species?

Invasive alien species can reduce native biodiversity in an area. American chestnut and American elm trees are no longer common in southern Ontario forests because of devastation by chestnut blight and Dutch elm disease, fungal organisms, respectively, from Asia and Europe. Several ecologically important Great Lakes fish populations, including lake trout and whitefish, collapsed in the 1950s in large part due to an invasion by the sea lamprey. Many native birds, including woodpeckers, purple martins and bluebirds, were displaced by the European starling. Experts believe that, after loss of habitat, invasive species are the second most important cause of the decline of native species.

The decline of native species and native ecosystems is, in part, an ethical issue. Significant components of our natural heritage – species and ecosystems that have developed since the last ice age – are being lost, and hence we are losing our future legacy. Since the 1800s, over 160 alien species have invaded the Great Lakes Basin. Sometimes called biological pollutants, they are unlike many chemical pollutants, which eventually dilute or degrade: invasive alien species reproduce and spread.

But the damage to native species by alien species is also an economic issue. The survival of Ontario's forestry, fishery and tourism industries depends on our natural resources. Not only have invasive alien species devastated commercially important tree and fish populations; they have also weakened and destroyed industries. Costly control and containment measures to maintain the resource have been required, and products have been made unusable through disease. Export markets have disappeared overnight, since under international law, countries can bar the entry of products from regions infested with invasive alien species.

What are some current initiatives related to invasive alien species?

In June 1992, Canada signed the Convention on Biological Diversity – a United Nations treaty – and thus agreed to work to prevent the introduction of invasive alien species and to control and eradicate those that threaten ecosystems, habitats or species. Under the umbrella of the Canadian Biodiversity Strategy, a National Invasive Alien Species Strategy and Action Plans are being developed to address prevention, early detection, rapid response and containment, eradication and control of invasive alien species at the national level. The Ministries of Natural Resources and Agriculture and Food are active participants under the overall leadership of the federal government.

At the provincial level, MNR has a number of initiatives that address specific concerns, such as zebra mussels and purple loosestrife. MNR has also recently posted a decision on the Environmental Registry for a regulation to prohibit the buying or selling of live

Asian carps, snakeheads and gobies. In fiscal year 2003/2004, MNR has committed $475,300 to fund 10 projects, including examining the impact of invasive alien species on biodiversity and the use of biocontrols. MNR is also a member of the provincial Introductions and Transfers Committee, which is responsible for reviewing proposed non-routine introductions and transfers of aquatic organisms for stocking and aquaculture. OMAF also has several initiatives specific to crop pests such as pea leafminer and leek moth, farmed deer and elk, and microbial and viral hazards such as the West Nile virus.

Why Ontario needs a strategy for invasive alien species

Many scientific, economic and political challenges must be overcome if the rate of introduction of invasive alien species is to be slowed, and if the existing invasive species are to be contained and eradicated.

- Prevention measures have gaps and are often not enforced.
- Government resources to detect, contain and eradicate these species are limited.
- Government funding of initiatives is very limited, considering the potential losses.
- Information about invasive alien species – their behaviour, preferred food and habitat, and control and eradication – is often lacking or non-existent.
- Containment and eradication measures are often controversial, particularly the use of biocontrols (such as another alien species) and of chemicals.
- Knowledge of our native ecosystems – species composition and interactions – is often dated or lacking.
- Property owners and local residents may be unaware of how their behaviour can undermine containment measures and may resent drastic measures, such as eradication of all trees within an area.

In our 2002/2003 annual report, we recommended that MNR draft an invasive species sub-strategy as part of a provincial biodiversity strategy, urging that the sub-strategy should include "a clearly identified vision, objectives, detailed courses of action, measurable targets and public reporting requirements." The invasive species sub-strategy should provide an Ontario perspective on invasive alien species, reflecting the province's social, economic and ecological values. In its response to the ECO's recommendation, MNR re-affirmed its commitment to addressing specific goals and directions, but did not acknowledge any need for a provincial biodiversity strategy or an invasive species sub-strategy. However, a sub-strategy regarding invasive species is required to ensure that all parties have the same priorities, that appropriate and well-co-ordinated rules

Asian Long-horned Beetle

On September 4, 2003, curiosity, research and perseverance led to one of the most important discoveries of tree infestations in Ontario. Fascinated by an unusual insect found in Vaughan, north of Toronto, a member of the public called the Canadian Food Inspection Agency (CFIA) who confirmed the insect's identity as the Asian long-horned beetle (ALHB).

Bluish-black in colour with a scattering of white spots, and over an inch long, adult ALHBs are easily identified. After mating, adult females will deposit eggs under the bark of susceptible trees from June to October. Within two weeks, larvae emerge from the eggs and feed on the cambium layer of trees, interrupting the flow of nutrients and water in the tree, before tunnelling into the heartwood. Larvae become pupae and then adults who tunnel their way back through the cambium layer to the surface. Adult females may stay on the same tree or may fly to another host tree within a few hundred metres before repeating the cycle. A major infestation can weaken a tree, eventually causing it to starve and die.

Originally from Asia, the adult ALHB has no natural predators in Ontario, and tunnels protect the larvae and pupae from predation. Furthermore, there are no parasites or diseases to control ALHB populations. Nor is Ontario's weather a limiting factor. Without the normal population controls, ALHB populations could spread to hardwood trees throughout Ontario and beyond. Maple trees are particularly susceptible, but so are horse chestnut, poplar, birch, willow, elm and mountain ash. Toronto has 485,000 susceptible trees on public land, and many more on private land.

By late September 2003, a central area of infestation in Vaughan and three satellite infestations had been found, and a plan developed by the CFIA several years ago had been activated. Two control methods had been identified – removal of all infested and susceptible trees or application of the pesticide imidacloprid. Public information sessions and extensive media coverage helped inform the public. A ministerial Order prohibiting the movement of nursery stock and wood through and out of the infested area unless authorized was issued by CFIA on February 26, 2004. By spring 2004, all susceptible trees within 400 metres of each infestation – over 15,000 trees, or more than half of the tree canopy in the infested area – had been removed, chipped and composted.

Since imidacloprid was not authorized for controlling ALHB in Canada, CFIA requested emergency registration of the pesticide. Treatment involves injecting the pesticide into the soil where it is absorbed by the roots. It then travels up the cambium layer of the tree. Since ALHBs have only brief contact with the cambium, imidacloprid is not 100 per cent effective and must be applied annually for several years. In addition, since adult ALHBs may actually avoid treated trees when selecting their next hosts, imidacloprid may actually cause ALHBs to travel further to find suitable hosts. The CFIA plans to use a combination of removing susceptible trees and treating trees with imidacloprid within 400 – 800 metres of an infested area.

Combating the ALHB has been expensive. The City of Toronto has estimated that it will spend $6 – $8 million in 2003 and 2004 on combating the ALHB, and the province is providing $1 million toward the cost of replacing the cut trees in ALHB- and emerald ash borer-infested areas. Imidacloprid treatment could cost $6.5 million annually for four years. The infestation in Vaughan will be considered eradicated if no ALHB are found for four years. Since ALHB probably arrived in wood packaging used to ship goods to Canada four to six years ago, there is a possibility that it has already spread to any locations where residents and wood from the infested area have travelled.

Incidents of Asian long-horned beetle in North America 1992-2003

Contained at port of entry/warehouse

1992 – Vancouver
1997 – British Columbia, Ontario, California, N. Carolina, Ohio, Washington, Michigan and New York
2000 – Seattle

Required eradication measures

1996 – New York
1998 – Chicago
2002 – Jersey City
2003 – Toronto

are in place to prevent entry of invasive alien species, that these species are detected upon arrival, that funds and resources are readily available, and that effective control and eradication measures are implemented without delay.

Moreover, legislation is also required to provide clear allocation of roles and responsibilities for federal, provincial and municipal agencies regarding invasive alien species, since there are no federal or provincial laws that specifically empower the different levels of governments to regulate these species. Under the Canadian Constitution, the federal government can enact laws over environmental matters that have inter-provincial or international effects related to shipping, inland fisheries and canals. Provincially, the Ontario Ministry of Natural Resources has responsibility for forestry and local fisheries. The federal Canadian Food Inspection Agency has lead responsibility for the invasive alien species that affect agriculture, while the Ontario Ministry for Agriculture and Food provides support. Municipalities are responsible for the trees on municipal public land.

Despite the existing legislation and various policies and codes used to guide decision-making, invasive alien species continue to enter and spread across the province. In view of the enormous value of our natural resources that are at risk, it is essential that the Ministry of Natural Resources step up to all of its responsibilities for protecting Ontario from invasive alien species. The strategy and legislation must ensure that not only commercially significant natural resources are protected; it must also ensure that all of Ontario's ecosystems are protected. Targeting specific invasive alien species without the context of a provincial strategy provides no assurance that scarce human and financial resources are appropriately deployed. *(For mininstry comments, see page 199.)*

EBR Rights Lost: Behind the Veil of Section 32

Introduction

The *Environmental Bill of Rights* is founded on the premise that the public should have the right to comment when government agencies make environmentally significant decisions. This also includes the explicit right to have those comments considered as part of the decision-making, and to learn how public comments affected the decision. The *EBR* also creates certain rights for members of the public to request appeals of "instruments" – permits, licences and approvals – that are posted on the Environmental Registry.

The *EBR* requires ministries to post certain instruments on the Registry, along with some background information, to allow for informed public comment. But under Section 32 (s.32) of the *EBR*, ministries are excused from posting if the instrument is part of a project either approved or exempted under the *Environmental Assessment Act (EAA)*. The *EAA* applies for the most part to projects undertaken by the public sector, including provincial agencies and municipalities. Section 32 was initially intended to avoid duplicating public consultation processes, since the *EAA*, at least in theory, has similar public consultation requirements. However, in our 2001/2002 annual report, the ECO evaluated public participation rights under several environmental assessment processes and concluded that they are deficient in many respects compared to the *EBR* process for instrument approvals.

These deficiencies mean that the existing broad application of s. 32 is depriving the public of rights to comment on and request appeals of instruments – rights that the *EBR* is intended to safeguard. The ECO continues to observe instances where members of the public have significant environmental concerns, but are frustrated by the limited opportunities under the *EAA* to comment on specific environmental permits. As a consequence of s. 32, some environmentally significant decisions are receiving no public notification, and indeed, no public scrutiny at all. Public scrutiny is a key driver for improving environmental decisions and practices. The ECO believes that shrouding decisions from all public scrutiny through s. 32 is not consistent with the goals and spirit of the *EBR*.

How widespread is the use of s.32?

The ECO is not able to estimate how many environmentally significant instruments are exempted each year from Registry posting because of s. 32, since there is no requirement that ministries or proponents keep records on these approvals. One area where s. 32 applies very extensively is in the matter of Class Environmental Assessments. These are streamlined planning processes, designed under the *EAA*, that apply a template of common rules to groups of similar public sector projects like municipal water and sewer upgrades, or provincial highways. Although the Ministry of the Environment, which is responsible for administering the *EAA*, has begun to require proponent government agencies to submit annual reports on activities covered under Class Environmental Assessments, these reports do not provide estimates of how many instruments are issued to implement the planned projects. As well, these annual reports are silent about large categories of "pre-approved" projects, which are exempted from any public consultation under Class EA processes. However, based on the following observations, it is likely that s.32 exempts many thousands of instruments from the *EBR*'s public notice and comment requirements each year.

- The Ministry of Natural Resources has submitted an annual report to MOE on how the ministry applied its Class EA for MNR Resource Stewardship and Facility Development Projects in 2003. This Class EA ranks projects into Categories A, B or C, depending on their predicted environmental significance, with Category A projects considered least significant. MNR's annual report noted that the ministry carried out a total of 126 Category B and Category C projects in 2003. MNR does provide a useful list briefly describing each project, but does not include a description of the types of environmental permits or approvals issued. Such approvals would include permits under the *Public Lands Act* and licences under the *Aggregate Resources Act*. The projects can include land sales, construction of cottage roads, snowmobile trails and bridges, as well as shoreline management activities. Category A projects, which are pre-approved and get no public consultation, are not quantified or listed in this report, but include sewage works and severances of surplus lands. MNR is hoping to expand the range of Category A projects, in which case even more activities will get no public consultation.
- The annual report for the Municipal Class EA (compiled by the Municipal Engineers Association) estimates that up to 95 per cent of municipal sewer, water and road projects are considered Schedule A, which means they are considered pre-approved, and require no public consultation. The annual report notes that Ontario municipalities submitted notices of completion for 97 Schedule B and C projects in 2002. The annual report includes a list of projects, but does not indicate what environmental permits or approvals were issued by MOE and other ministries. As important, it shows that only a small fraction (about 12 per cent) of Ontario municipalities submitted notices of completion for the more significant Schedule B and C projects in 2002. Comments collected for this annual report suggest that many municipalities still need training on what projects are subject to the Class EA.
- The Ministry of Transportation reports that for 2001/2002, a total of 114 projects were subject to requirements under the MTO Class EA. But the ministry does not provide a list of those projects nor indicate what kinds of environmental permits or approvals would be associated with each project.
- MOE has informed the ECO that it has updated almost 5,000 Certificates of Approval (Cs of A) of various types since 2000, including Cs of A for sewage treatment and drinking water plants. The ECO has not yet received a breakdown of how many of these updated Cs of A were posted on the Registry, and how many were exempted by s.32. Even though there is considerable public interest in municipal drinking water and sewage treatment projects, approvals and permits related to such projects are not normally posted on the Registry, since they are carried out under the Municipal Class EA, and thus exempted by s. 32.

- A large (but unquantified) group of instruments have blanket exemptions under the *EAA*, for a variety of historical reasons. For example, undertakings by certain ministries as defined under Regulation 334 RRO1990 are exempt. This means they get no public consultation under the *EAA*, and because of s. 32, they also do not get any public consultation under the *EBR*. The ECO becomes aware of such instruments only by accident. For example in 2002, an air approval for a set of fume hoods at North York General Hospital in Toronto was posted to the Registry by MOE. The ministry later noted that this notice was posted in error, since MOE interprets the exemption to mean instruments issued to the hospital are exempt from the *EBR*. Although local residents might find the emissions from a public hospital to be just as relevant as emissions from a private laboratory, s.32 means that they have no right to know about or comment on such approvals.

Information notices – only a partial solution

It seems that MOE has recently begun to recognize the public consultation shortcomings created by s.32. This is suggested by a few scattered examples where MOE has made efforts to solicit public comments through the Registry on certain contentious instruments issued under EA processes. In these cases, MOE has posted information or exception notices on the Registry and has provided comment periods of varying lengths.

For example, MOE has voluntarily posted several information notices with comment periods for permits to take water (PTTW) relating to a highly contentious sewer construction project in York Region, which was approved under a Class EA. MOE has also voluntarily posted an information notice with a comment period on a permit to take water from the pit of the proposed Adams Mine waste disposal site near Kirkland Lake. In this latter case, the proposed waste disposal site had been approved under an individual EA, so again, this PTTW was not subject to a regular proposal notice on the Registry, despite intense public interest. MOE's information notice triggered more than 23,000 comments regarding the proposed PTTW for the Adams Mine Site.

It is important to emphasize that even though the ministry took some half-measures to consult in the above examples, the public was still deprived of several key rights that would have existed for an instrument prescribed for a regular notice on the Registry; the ministry was not obligated to post a decision notice, or explain the effects of public comments on the decision in such a notice. The public also did not have the right to request an appeal of these instruments. Moreover, in cases where there are no Registry decision notices, the ECO does not undertake independent decision reviews for publication in the ECO annual report, nor examine the effects of public comment.

In 2002, MNR promised to consider posting information notices for certain projects that could generate province-wide public interest, but are receiving only local public notice under the Class EA for Resource Stewardship. However, as of May 2004, MNR has yet to post a single notice related to projects it has approved under this Class EA. MNR does post information notices on its Forest Management Plans.

Broader concerns within EA processes

Many concerns about EA processes are brought to our attention through requests for *EBR* reviews or investigations related to the *EAA*. So far we have focused on the absence of public consultation rights for instruments issued under the broad umbrella of the *EAA*. But we have also observed that EA processes can suffer from more general weaknesses in transparency and public consultation, as well as inadequate regard for environmental protection. These weaknesses are relevant to our discussion because they directly affect the ability of the public to negotiate the complex procedural terrain created by the *EAA*. Aside from the fact that specific instruments are not submitted to public consultation or appeals, the ECO has also observed the following problems:

- In some cases, members of the public have trouble accessing detailed EA approval documents and background environmental studies, even though they form the basis for government decision-making on a particular project. In some cases, people are forced by proponent ministries and agencies to use Freedom of Information legislation, which can be frustrating, time-consuming and expensive. Members of the public should have easy access to such information, since they often have special knowledge of site-specific environmental issues and can provide valuable input to improve projects.
- Some Class EA documents are not readily available, even though these documents are vital to understanding the public consultation opportunities and other rules governing many types of projects. While MNR has made its Class EA available on the ministry's internet site, and MTO's Class EA is available for free on the Web site of the Ronen House publishing company (www.ronenhouse.com), the Municipal Class EA must be ordered for $75.00 from the Ontario Good Roads Association. This obstacle will deter many members of the public (and even some municipal staff) from trying to understand the approval process governing municipal water, sewer and road projects.
- MOE staff have observed that some proponents under the Municipal Class EA submit inadequate environmental studies, and have incomplete or missing project files at key review stages of projects. For example, information on water quality, water quantity, contingency plans and baseline data has been lacking. Tight timelines prohibiting proper technical reviews are also cited as concerns.

- In some cases, EA processes governing provincial highway projects fail to achieve the intended levels of environmental protection. See pages 145-150 for a case study where environmental commitments made under an individual EA approval issued to MTO were not carried out. MNR staff have similarly raised concerns that the MTO Class EA for highway construction has been unable to achieve environmental protection in instances involving provincially significant wetlands and threatened species habitat. There is also no requirement to prevent a continual net loss of natural heritage features.
- Under Class EAs, the public does have certain time-limited opportunities to request more detailed environmental studies (termed "Part II Orders" or, previously, "bump-up requests"). But in practice, there is a very low likelihood that such requests will be granted by MOE. For example, MOE reviewed 11 such requests under the Municipal Class EA in 2002, and all were denied. Similarly, MOE reviewed six such requests under MTO's Class EA in 2001/2002, and all were denied. Under MNR's Class EA for Timber Management, over 80 bump-up requests were made from 1994 to 2001, and all were denied.
- In some cases, members of the public are frustrated when proponents operating under Class EAs change their projects in a significant way after most of the public consultation opportunities are over. The ECO has observed that concerned residents have very few options of redress in such situations.
- Under Class EAs, public comments and concerns are submitted to the proponent, rather than to an independent arbiter. The proponent can decide how (or whether) to respond to the concerns. MOE also tends to bounce commenters' procedural concerns about a project back to the proponent.
- Most new Class EAs are "evergreen": they have no expiry date. Although proponents have to review their implementation periodically, there is no guaranteed mechanism for public input into such a review. Nor is there a trigger for MOE to review the effectiveness of Class EAs on a regular basis.

Progress on tracking and monitoring EA processes

The ECO's 2001/2002 annual report raised a number of concerns about MOE's ability as regulator to oversee compliance trends in the various Class EAs. MOE promised a number of improvements to compliance and monitoring of Class EAs, including a requirement that annual reports eventually be prepared by all proponent agencies. But MOE conducted only cursory reviews of annual reports submitted for 2002, and carried out little follow-up. In March 2003, MOE launched its "EA Compliance Monitoring Program." MOE provided the ECO with an update on this project in the spring of 2004, committing to reviewing all annual reports, and to carrying out more detailed audits if shortcomings are found.

MOE said it would send letters requiring action, and pursue enforcement if proponents do not remedy deficiencies. MOE says it has similar procedures for reviewing individual EA annual reports.

Of nine existing Class EAs, only three proponent agencies submitted annual reports in 2003, but the ECO expects this will improve slowly as reporting begins on new and revised Class EAs. MOE reviewed the three annual reports submitted in 2003 as promised. One MOE review identified many missing notices, environmental study reports and project plans. The deficiencies weren't corrected after MOE's first letter and MOE will wait until its review of the next annual report to see if a second letter is needed. MOE says if that isn't effective, the ministry will simply document the issue in the five-year review.

The ECO has commented in the past on MOE's failure to monitor compliance with the Ontario Realty Corporation (ORC) Class EA and MNR's Timber Management Class EA. In 2001 MOE committed to reviewing MNR's annual reports in consultation with independent third party reviewers. MOE admitted in its April 2004 update for the ECO that it did not carry out these reviews. ORC and MNR's last annual reports under these Class EAs date from 2000/2001, despite previous firm commitments to the ECO and MOE to file reports more quickly. MOE undertook informal reviews of these reports when they came in, but did not document its analysis or take any action. Both Class EAs have recently been renewed. The new ORC Class EA and others include due dates for annual reports and much more detailed monitoring requirements. The new Forest Management Class EA does not.

MOE has taken several important steps to implement a compliance monitoring program. But the ministry should be more active to ensure that proponents are complying with the terms and conditions of their Class EAs. Above and beyond a desk review of annual reports that provide only a general overview, MOE needs to audit some project files in order to judge whether proponents have properly classified projects and provided required public consultation opportunities. In 2002, MOE reviewed a number of Municipal Class EA planning processes and found examples where the proper process was not used and required documentation was incomplete. MOE staff noted at the time that proponents should give more attention to compliance with EA commitments, and should carry those commitments through into project-specific environmental permits.

Based on our review of a number of Class EA annual reports covering several years, MOE's audit work should evaluate whether the listing of projects is complete, and whether in some cases proponents are carrying out undertakings without using the Class EA or simply not reporting. MOE also needs to respond promptly to complaints and *EBR* investigation requests relating to Class EAs, because the six-month statute of limitations allows only a narrow window for action if enforcement is found to be necessary.

Conclusions

The framers of the *EBR* created s.32 because they wanted to avoid duplication in public consultation. But in practice this provision has become a veil that obscures many kinds of environmentally significant activities from public scrutiny. S.32 covers instruments relating to a large and diverse range of activities, including provincial highways, municipal wells, sewers and roads, sales of public lands, and forest and shoreline management. Because information on permits and approvals relating to all these activities is hidden, the public cannot provide meaningful comment on site-specific projects. The public is also prevented from evaluating the cumulative environmental effects of all these activities. In establishing the *EBR* 10 years ago, the Ontario Legislature enshrined certain minimum public consultation rights on environmental matters, including the right to know, the right to comment and the right to have one's comments considered. To be true to the spirit of the *EBR*, ministries need to ensure that public consultation under the *EAA* has regard for those rights, and becomes truly transparent. *(For mininstry comments, see page 199.)*

Recommendation 5

The ECO recommends that MOE ensure that public consultation practices under the Environmental Assessment Act *are consistent with the minimum rights enshrined in the* Environmental Bill of Rights, *particularly with regard to permits, licenses and approvals.*

Update: MOE's Policy on Industrial Air Emissions

In the spring of 2001, the Ministry of the Environment posted two discussion papers on the Environmental Registry, proposing long overdue changes to the way the ministry regulates air emissions from industrial sources.

The first discussion paper was entitled Updating Ontario's Air Dispersion Models (Registry # PA01E0003). It proposed phasing out the existing computer models that have been used by the ministry for many years to predict air emissions from sources such as smelters, refineries, chemical producers, power plants, paint shops and many other types of facilities. It proposed instead adopting a new suite of computer models used by the U.S. Environmental Protection Agency. MOE explained that the new models would be better tools for predicting maximum ground level concentrations of contaminants, as well as the impacts on human health and the environment. Among other things, the new models would more realistically represent the layout of buildings, meteorological

conditions and other factors that determine how air contaminants disperse after being emitted from stacks and vents.

The second discussion paper was called A Proposed Risk Management Framework for the Air Standard Setting Process in Ontario (Registry # PA01E0002). This paper explained that the ministry was planning to develop a number of new and more stringent air quality standards for certain contaminants, which would be based on environmental and human health effects. The more stringent standards would translate, over time, into tougher emission limits for industrial facilities. Because some facilities and perhaps some entire industrial sectors would have trouble meeting the new tougher emission limits, the ministry needed a predictable process and rules for providing regulatory relief, while still protecting local communities from the impacts of air pollution. The Proposed Risk Management Framework laid out the ministry's thinking on what this process could look like. MOE provided generous comment periods for both of the 2001 discussion papers, and received a number of comments on each.

Recent initiatives

Although MOE has not posted updates or a summary of public comments or decisions on these three-year-old proposals, MOE's plans have evolved, and in June 2004, the ministry did post several interconnected new policy proposals:

- Air Dispersion Modelling Guideline for Ontario (Registry # PA04E0009)
- Guideline for the Implement of Air Standards in Ontario (Registry # PA04E0010)
- Updating Ontario's Regulatory Framework for Local Air Quality (Registry # PA04E0011)

The ministry provided a four-month comment period and detailed technical information on each of the 2004 proposals. The package of proposals describes how MOE plans to phase in new rules for dispersion modeling and new air standards and how MOE plans to deal with facilities that face barriers in meeting the new rules. MOE's backgrounder notes that "if necessary, the process would allow site-specific or technology-based limits that take into consideration timing issues, technology limitations and/or economic barriers. The local community would have an opportunity for input into the decision-making process. Facilities would have to demonstrate they are doing the best they can today to reduce their emissions and tell the ministry and the public how they will improve their emissions over time. The site-specific limit would be periodically reviewed to ensure continual improvement towards achieving the effects-based standard." The ECO will review these initiatives once decisions have been posted on the Registry.

MOE has also been running a pilot project with the cooperation of five large industrial facilities, applying the concepts of the risk management framework in a real world setting, with local community involvement. MOE notes that this pilot is now in its final stages.

Delays in setting air standards

Delays in standard-setting for air contaminants have been highlighted as a concern by the ECO as far back as 1998. That year, an MOE report acknowledged, "Many of Ontario's air standards were established over twenty years ago. When compared to exposure limits and guidelines used in other jurisdictions, some of these standards are clearly dated and may not be adequately protective."

In 2000, the ministry finalized a plan for setting environmental quality standards. The plan highlighted 70 air contaminants for which new Ontario standards need to be developed as a high priority, based on their toxicity and the quantities released in Ontario. The plan listed a further 200 air contaminants that also need updates, because they are no longer in line with guidelines, standards or exposure limits used by other regulatory agencies. But over the last four years, MOE has finalized only 18 new air standards. The decisions for these substances were all posted in March 2001. MOE posted information drafts on the Registry for a further 15 substances in early 2003. Most recently, in June 2004, MOE solicited public comments on proposals for new or updated air standards for 28 pollutants and finalized one decision on a standard for n-hexane. MOE indicated that the phase-in period for new standards would normally be five years, unless otherwise prescribed by regulation.

ECO Comment

Most observers (and MOE itself) agree that the ministry's science tools for regulating air emissions from industry are woefully outdated. MOE's existing air dispersion model (referenced in Reg.346) is 30 years old, and is based on an even older model. MOE has acknowledged the weaknesses of the current model since at least 1987, when the ministry made a first attempt to overhaul its regulatory framework for industrial air emissions.

One weakness is that the model is designed to predict the behaviour of gases, but does not address the environmental impacts of particulates and metals such as lead, which can build up in local soils over time. As well, the model can consider only a small range of atmospheric conditions, often assuming wind speeds of 5 metres/second, or 18 km/hour. But if winds are calm, as is often the case in early morning hours, then real concentrations of contaminants can greatly exceed the predictions of the model. In fact, depending on the conditions, MOE's old model can under-predict concentrations of contaminants by two to 20 times.

The ministry also determined over four years ago that roughly 270 air quality standards need to be reviewed, and in many cases tightened. The combined effect of the outdated air dispersion model and the outdated standards is that the ministry is significantly under-predicting current industrial air emissions, and is in many cases applying emission limits that do not adequately protect local communities or the environment. The June 2004 proposals indicate that MOE intends to make the upgrade of its air dispersion models and its air standards a higher priority. The ECO encourages MOE to implement these upgrades promptly. Without these changes, the ministry will continue to struggle with an antiquated regulatory framework, and will not be able to respond to the cumulative impacts of industrial air pollutants. The ministry also needs to continue to involve the public in the process of translating these changes into updated emission limits for industry. *(For mininstry comments, see page 199.)*

Update: MNR's Compliance Program for Sand and Gravel Operations

The Ministry of Natural Resources is responsible for regulating sand, gravel and rock (aggregate) extraction in Ontario. MNR administers approximately 3,300 licenses on private lands and 2,600 aggregate permits on Crown lands. Operators of pits and quarries are required to follow the conditions of their site plans, which MNR approves under the *Aggregate Resources Act (ARA)*. Site plans are intended to control the impacts of aggregate operations on the natural environment and on nearby residents by setting out site-specific rules, such as allowable depth of excavation, types and locations of noise and visual screens, hours of operation, and any required protection of wetlands, woodlots or other natural heritage values. Over the years, the ECO has heard many concerns and complaints from the public about aggregate operations, including allegations that site plans are not being complied with.

Until 1997, MNR inspectors were required to inspect each licensed aggregate site annually, but in practice, fiscal constraints and reduced staffing meant that the ministry could not get to each site every year. After considerable consultation and planning with the industry, the ministry established a new compliance reporting process in 1997. Under the new process, aggregate operators file their own reports annually – called Compliance Assessment Reports, or CARs – on how they complied with the *ARA*, its regulations, the site plan and license conditions. MNR's role now is to review the reports filed by industry and to carry out field checks for a small percentage of operations. In 1997/1998, MNR had committed to field check 20 per cent of licenses, rising to at least 50 per cent in following years. The ministry noted in 2000 that the 20 per cent target was necessary to ensure that every site was inspected within the five-year window for possible prosecutions under the *ARA*. However, because of inadequate staffing MNR was not able to meet this target.

In our 1999/2000 annual report, the ECO encouraged MNR to review the effectiveness of its Aggregate Resources Compliance Reporting Program. MNR conducted the review and informed the ECO in April 2002 that, generally, the quality of CARs was lacking. Deficient reports commonly omitted information such as excavation depth, rehabilitation information, site sketches, or information regarding consultation with municipalities. MNR also emphasized the need for the ministry to complete field audits and to provide additional training to industry on how to report on their compliance properly. MNR stated that it was implementing or at least considering 16 administrative changes to improve the situation.

MNR provided an update on its Aggregate Compliance Program in January 2004. Significantly, the ministry is still failing to meet its target of field auditing at least 20 per cent of licences. In fact, the success rate is declining: MNR audited 13 per cent of licences in 2002 and only 10 per cent in 2003. However, the ministry has carried out a number of smaller administrative improvements, including:

- defining in policy what constitutes an "audit."
- directing staff to document in writing the results of any audits, and to place a copy on file.
- developing a spread-sheet to track compliance reporting, including submissions, remedial action deadlines, follow-up actions and field audits.
- sending out form letters to spur industry to submit their annual CARs.

MNR has also begun to suspend or temporarily revoke licences when CARs are not submitted by the annual deadline. MNR also reported that in 2002/2003, the ministry began targeting licensees and permittees who submit poor quality reports. The ministry held 22 training sessions with the aggregate industry province-wide on how to complete the CARs, and the consequences of not meeting legal obligations.

MNR had previously indicated it was considering new powers for aggregate inspectors, by empowering them to issue Part 1 tickets under the *Provincial Offences Act*. This would allow for an instant penalty for violations such as non-submission of the CAR. MNR now reports, two years later, this idea is still being considered and discussed internally.

MNR had also been seeking a legislative amendment to allow for a "stop-work order" for any violation of the *ARA*. Unfortunately, the proposed legislative change was included as part of a Government Efficiency Bill tabled in 2003 and it died on the order paper when the election was called in October 2003. The new government has not announced whether it will proceed with a similar bill.

ECO Comment

Aggregate operations are a chronic source of complaints to MNR, to the Ministry of the Environment, and to the ECO. Municipalities in areas where sand and gravel deposits are concentrated also face many complaints from residents. Municipal councils are often frustrated because they have very little control over compliance at aggregate operations, but are required by provincial policy to permit this land use. In April 2004, one municipal council threatened to refuse any further zoning for aggregate extraction, asserting that MNR has abandoned the best interests of the township.

The ECO finds it very troubling that the Ministry of Natural Resources is persistently unable to meet its own target of field-auditing at least 20 per cent of CARs for licenses. In 1997, when MNR first set up this "alternate service delivery" compliance program, the ECO cautioned that while the ministry's plans were well-laid out, much depended on having adequate staffing to meet the field-audit targets. MNR inspection staff are also still without enforcement tools such as the ability to issue Part 1 tickets or stop-work orders. The ministry has a clear obligation to ensure that the aggregate industry operates in compliance with existing rules. MNR should also be able to demonstrate to the public that its compliance and enforcement programs are operating as promised, and are effective. The ministry's continuing inability to fulfill this obligation is perpetuating conflicts at existing operations, and is also undermining the public's confidence in the regulatory system itself, thus leading to a loss of access to the resource. *(For mininstry comments, see page 200.)*

Recommendation 6

The ECO recommends that MNR ensure that the aggregate industry operates in compliance with existing rules, and that the ministry demonstrate to the public that its compliance and enforcement programs for this industry are working effectively.

Update: Monitoring of Aquatic Ecosystem Indicators

What are the effects of industries, highways, urban development, forestry and agricultural land uses on Ontario's aquatic ecosystems? How are these ecosystems changing in response to these pressures, and what are the long-term implications for safeguarding their quality and integrity? In our 1999/2000 annual report, the ECO noted that provincial ministries are operating without accurate or current evaluations of ecosystem health. We recommended then that the Ministries of the Environment and Natural Resources both develop "current and comprehensive information that would allow for the development of scientifically defensible rationales for habitat protection activities and the identification of emerging ecosystem problems."

The ECO returned to this theme in our 2001/2002 annual report when we reported that substantial reductions had been made to the monitoring of provincial surface water quality. We reported that between 1995 and 2000, the number of monitoring network stations was reduced from 730 to 240. This trend has now been reversed, and in spring 2004, MOE advised the ECO that the number of stations has grown to approximately 380 stations. The purpose of this network is to compile long-term data on water quality, consisting of information on some 39 parameters, mainly nutrients, metals and ions such as chloride. Selected stations are sampling for priority organic pollutants such as PCBs, while others are sampled more frequently to provide information to the International Joint Commission about sediment and nutrient quantities exported from watersheds to the Great Lakes.

The assessment of water chemistry alone, however, leaves much out of the equation. In 2003/2004, MOE, Environment Canada and the Conservation Authorities initiated a program called the Ontario Benthos Biomonitoring Network, which will ultimately have the capability of providing a more holistic picture of the health of the aquatic systems throughout parts of the province. The monitoring program staff will gather data and conduct statistical analyses of numbers of various taxonomic groups of benthic (bottom-dwelling) invertebrates such as aquatic insects, crustaceans, worms, and mollusks. Based on the observation that some of these groups are more sensitive to pollutants than others, a careful population analysis can provide a good assessment of the health of the system at the selected location and time. There are numerous metrics and indices of stream health that can be derived from the data, and therefore part of the initial challenge will be the development of a standardized approach.

Currently, MOE and its partners have selected and sampled some 200 benthos "reference sites," which are largely natural or non-impacted stream locations. MOE plans to proceed with monitoring of test sites in spring 2005 and 2006. Once this biomonitoring network is fully established, data from test sites will complement the water quality monitoring network, overlapping some existing sampling sites and introducing new ones.

Examining contaminants in fish is another way of gauging the health of aquatic ecosystems. MOE and MNR have long operated the Sportfish Contaminant Monitoring Program, publishing the Guide to Eating Ontario Sport Fish every two years. The data on PCBs, pesticides, metals, mercury, dioxins and furans in sport fish flesh from the province's waterways and lakes are used to provide consumption advisories. The data have been useful in showing trends – for example, a long-term improvement in levels of toxaphene, mercury and PCBs in Lake Superior lake trout.

In the wake of the Walkerton tragedy, the provincial government has increased funding to ensure that drinking water quality is adequately monitored and regulated. In 2003, the protection of the primary sources of drinking water became a major thrust of program development. Early initiatives include the installation of a substantial groundwater monitoring program under the Provincial Groundwater Monitoring Network, consisting of some 400 sites established by MOE in cooperation with Conservation Authorities. But provincial ministries need to ensure that these initiatives do not starve other monitoring programs covering a variety of aquatic ecosystem components around the province.

Aquatic ecosystems of the north

Some of our most valuable and pristine aquatic ecosystems are found in lakes and waterways in the northern parts of the province. Transboundary pollution, including atmospheric deposition originating in other continents, has had measurable effects, particularly noticeable on the aquatic ecosystems of sensitive northern lakes. For example, 96 per cent of all walleye lakes and 76 per cent of all lake trout lakes in the north have some recommended level of restriction of fish consumption because of mercury contamination (see also pages 116-126). As well, climate change has implications for the sustainable management of lake trout populations because of the potentially significant reductions in the amount of suitable cold-water, high-oxygen habitat needed by this sensitive species.

The construction of logging roads and timber harvesting have the potential for major impacts on aquatic ecosystems. For example, logging road development opens up access to sensitive lake trout lakes and exposes them to possible overexploitation. The ECO is aware of one small lake where lake trout were fished out in a short period of time following road development. In this particular case, ongoing experimental monitoring was able to document this over-fishing, but in tens of thousands of other northern lakes and rivers, no monitoring is done. Over vast areas of the province, there is nothing in place to detect such impacts. (See also page 98 of this report on roadless wilderness access.)

Under one of the terms of the 1994 Timber Management Class EA, MNR was required to carry out long-term scientific studies to assess the effectiveness of provincial guidelines for the protection of fish habitat. Studies were done in the Coldwater Lakes Experimental Watersheds near Atikokan, and coldwater streams near Thunder Bay. Included in the many findings from these studies was the observation that the timber management guidelines for the protection of fish habitat protection were insufficient for protecting small, unmapped streams. However, recommendations arising from the studies also included a suggestion that the buffer widths specified in the guidelines could be relaxed to allow limited timber harvesting right to the shoreline of some lakes. MNR is currently revising the Timber Management Guidelines for the Protection of Fish Habitat, based on these findings.

In 2003, the Timber Management Class EA was replaced by a Forest Management Declaration Order (see also pages 94-99) and the former Class EA's detailed requirements for long-term impact assessment studies were replaced with the rather weak requirement to "maintain a program of scientific studies to assess the effectiveness of the guides." The ECO believes that changes to forest management policy – such as changes to the fish habitat protection guidelines – need to be made cautiously, and that strategically planned long-term ecosystem monitoring programs should be in place to assess subtle or gradual changes to the aquatic resources of the northern forests.

Cottage country

Throughout "cottage country" there is a growing need to monitor lake ecosystems. One long-standing program is MOE's Lake Partners Program, involving individuals and cottage owners associations in the sampling of about 500 inland lakes. The focus of data gathering and analysis is on water clarity and phosphorus. Phosphorus overloading to lakes is still a serious issue and community involvement can help with its control. However, introductions of invasive alien and native species are looming ever larger as a concern demanding attention in recreational lake areas. (See also pages 47-52.) Expanding public involvement and awareness of ecological threats, possibly by further introducing aquatic ecology components into programs such as the Lake Partners Program, might be one useful approach. MNR should also consider supporting more aquatic community assessments and surveys, particularly in areas where these invasions are most active.

Lake trout

In our 2001/2002 annual report, the ECO called attention to the sensitivity of the lake trout. We pointed out the need for a province-wide strategy to support the sustainable management of this exceptional sport fish. The first challenge is to characterize and classify lakes that should be afforded protection as lake trout lakes. This is particularly the case in southeastern Ontario. Ongoing knowledge of the population sizes and reproductive success of naturally reproducing populations of lake trout is needed on a broader scale than currently exists. Currently, long-term data are available from only 31 out of 2,200 lake trout lakes in the province. In spring 2003 and 2004, MNR advised the ECO that a pilot State of the Resource monitoring program had been successfully completed and that it is evolving into a proposal for a province-wide monitoring program. MNR had stated that a discussion paper outlining options for such a program would be available by August 2003, but the ECO has not seen this as of May 2004.

Summary

Climate change, invasive alien species, development, resource extraction and other human activities are causing serious stress in many aquatic ecosystems. The provincial agencies responsible need to ensure that both targeted studies and long-term monitoring strategies are in place to monitor the impacts of these threats to the province's vast but highly vulnerable aquatic resources. *(For mininstry comments, see page 200.)*

Update: Protecting the Wolves of Algonquin

In March 2004, the Minister of Natural Resources announced that a permanent ban on the hunting and trapping of wolves would be put in place in the 40 townships surrounding Algonquin Provincial Park. The ban also includes parts of the park where hunting and trapping were historically allowed. The area in and around Algonquin, with a population of approximately 200 animals, is the largest protected area in North America for eastern wolves, and the ban essentially doubles the size of the area where the wolves are protected from hunting and trapping.

The ban replaces a 30-month moratorium on hunting and trapping in the townships that was set to expire in June 2004. During the temporary moratorium, MNR conducted scientific research that concluded that a permanent ban on hunting and trapping was necessary to protect this wolf population.

Both the moratorium and the research were initially undertaken after other scientists had demonstrated that the population was at risk of being entirely wiped out. Park boundaries are often arbitrary, based more on politics than on ecological design, and Algonquin's wolves frequently travel beyond the confines of the park, hunting each winter in deer-yards in the townships outside the park. As soon as the wolves cross the invisible boundaries of Algonquin, they lose all legal protection. More than two-thirds of wolf deaths in the years prior to the moratorium and ban were attributed to hunting and trapping, leading to a steady decline in the population as annual mortality rates exceeded replacement.

The permanent ban was also extended to the hunting and trapping of coyotes in the 40 townships, since it is difficult to distinguish visually between eastern wolves and coyotes. Protecting both species prevents the accidental deaths of eastern wolves. The ministry also has prohibited chasing wolves or coyotes with dogs, both in the park and in the townships surrounding the park.

MNR also announced that it was proposing to recognize the eastern wolf formally as a species at risk in Ontario. This designation follows the Government of Canada's recognition of the eastern wolf as a "species of special concern" in 2001 and its protection under the federal *Species at Risk Act*. The Committee on the Status of Endangered Wildlife in Canada estimates there are approximately 2,000 eastern wolves spread across Ontario and Quebec. However, because of human development and the loss of habitat, the eastern wolf has been extirpated from the southern portions of its range.

Following a commitment made by the current Premier of Ontario, MNR will also begin developing a province-wide strategy to conserve both species of Ontario's wolves – gray wolves (*Canis lupus*) and eastern wolves (*Canis lycaon*). Though both are recognized as keystone species because of their disproportionately important role as top predators in the functioning of ecosystems, little data exist on their populations and ranges across Ontario. MNR has also committed to continue its research program on eastern wolves in Algonquin.

ECO Comment

The ECO commends the current Minister of Natural Resources for taking action to conserve Ontario's wolves, which are among the most ecologically important species found in the province. These actions represent a dramatic shift in the way in which MNR has historically dealt with the species. As the minister stated in making this announcement, wolves were among the last "unregulated" species in Ontario, with virtually no conservation measures protecting them.

Few protected areas are actually large enough to "protect" species such as wolves that routinely travel beyond their boundaries. Even Algonquin Provincial Park, which covers 7,725 km^2, was not large enough to protect its small population of a few hundred wolves. Because of the hunting and trapping ban, a buffer zone has essentially been created around Algonquin. This farsighted approach to protecting this species at risk is among the first of its kind in all of Canada. The ECO hopes that MNR will apply these kinds of conservation measures to other protected areas in Ontario for at-risk wildlife populations.

These developments in wildlife conservation represent a success story for the role of the Environmental Commissioner of Ontario. In our 2001/2002 annual report, the ECO recommended that MNR maintain the moratorium on the hunting and trapping of eastern wolves in the townships surrounding Algonquin Provincial Park until such time as the population is scientifically demonstrated to be viable. The ECO was also concerned that the temporary moratorium was not extended to coyotes. By making the hunting and trapping ban permanent, and by including coyotes, MNR has implemented this ECO recommendation.

Slightly more than 30 years ago, the Ontario government treated wolves as vermin and offered a bounty to kill them. Now, Ontario has begun to recognize the complex ecological role they play in the natural environment and has acted to protect them.

The developments are also a success story for the *Environmental Bill of Rights*. In November 2002, the Ottawa Valley Chapter of the Canadian Parks and Wilderness Society and the Sierra Legal Defence Fund filed an *EBR* application requesting that MNR formally designate the eastern wolf as a species at risk. The applicants also requested that MNR consider creating a provincial conservation strategy for both eastern wolves and gray wolves, and asserted that the ministry's management of these two species should be based on modern scientific principles to ensure that Ontario's biological diversity is maintained.

At that time, MNR turned down this application for review, claiming that Ontario's wolf populations were healthy, and that there was no evidence that hunting and trapping posed a threat to their sustainability. In its 2002/2003 annual report, the ECO disagreed with the ministry's position, urging MNR to create a province-wide strategy and to list the eastern wolf as a species at risk.

Through this change of policy, MNR now has elected to recognize the eastern wolf formally as a species at risk. The Minister of Natural Resources also has publicly announced that the ministry will create a provincial strategy to conserve Ontario's wolves. This is a sensible decision by MNR, since Ontario will have to develop a similar strategy for eastern wolves by 2008, as required by the federal *Species at Risk Act*. The ECO also commends MNR for its decision to continue the wolf research program at Algonquin Provincial Park.

The creation and implementation of a provincial strategy for wolves, with a long-term ecological vision, would be a progressive step toward shifting the province's approach from wildlife "management" to wildlife "conservation." Slightly more than 30 years ago, the Ontario government treated wolves as vermin and offered a bounty to kill them. Now, Ontario has begun to recognize the complex ecological role they play in the natural environment and has acted to protect them. The ECO hopes that this represents a new beginning in which science plays a more substantive role in guiding ministry wildlife policies. *(For mininstry comments, see page 200.)*

Update: Who Enforces the Class EA? – The ORC Case

In January 2001, two environmental groups submitted an *EBR* application for investigation alleging that the Ontario Realty Corporation (ORC) contravened the *Environmental Assessment Act (EAA)* by failing to comply with the requirements of its Class Environmental

Assessment for ORC Realty Activities (the Class EA). Class environmental assessments are streamlined planning processes, designed under the *EAA*, that apply common rules to groups of similar public sector projects. ORC is the agency responsible for lands and property owned by the provincial government. ORC's new Class EA was approved in April 2004, but this investigation was carried out under the original Class EA approved in 1992.

The applicants said that ORC had sold or was proposing to sell several properties without carrying out the proper environmental study and public consultation required by the Class EA. They listed several specific properties, including a 170-hectare property at Reesor Road and Steeles Avenue in Markham that ORC was planning to sell to the Catholic Cemeteries Archdiocese of Toronto (CCAT).

Class EAs set out different levels of EA study, or "categories" according to different degrees of predicted environmental impact. ORC's Class EA places most land sales in Category B – projects that have "some potential for adverse effects." Category B projects require consultation with directly affected parties, a site analysis, and filing of a Consultation and Documentation Record. When the property being sold contains or affects an Environmentally Significant Area (ESA) and is being sold to a non-conservation body, the project is listed as a Category C. Category C projects have "known significant impacts" on the environment and require additional study and consultation. Category D projects require even more thorough individual environmental assessments. The applicants suggested that the land sales in question should have been Category C or D instead of Category B.

MOE carried out an *EBR* investigation in response to this application and concluded that "none of the available information had shown that the Ontario Realty Corporation conducted the wrong category of assessment for any of the properties mentioned in the application." MOE pointed out that even if the wrong environmental planning process was followed, the limitation period for prosecutions for this offence had expired because most of the sales took place several years ago. Under the *Provincial Offences Act*, charges for an offence under the *EAA* must be laid within six months after the date upon which the offence was or is alleged to have been committed.

The ECO reported on this investigation in the Supplement to our 2002/2003 annual report. We noted that the investigation highlighted the inadequacy of the statute of limitations for prosecutions under the *Provincial Offences Act*, which makes it very difficult to pursue applications for investigation regarding the *EAA* under the *EBR*. Moreover, the combination of the six-month limitation period and long MOE investigations can deprive applicants of their rights to launch private prosecutions, should MOE decide not to take action. MOE should consider amending the *EAA* to provide a two-year statute of limitations.

The Reesor Road property

One of the properties specified in the *EBR* application, the Reesor Road property, was sold in March 2002, during the *EBR* investigation. MOE concluded that the proposed sale had properly been categorized as a Category B undertaking because there were no ESAs on the property. The applicants believed it was a Category C undertaking, alleging that the sale of the property was environmentally significant and that there had not been adequate public consultation. The ministry did not provide an *EBR* investigation summary to the applicants regarding the Reesor Road property, and instead, simply sent them a copy of its denial of the applicants' request under the *EAA* that the undertaking be bumped to an individual environmental assessment, adding that this concluded the *EBR* investigation as well. MOE did not provide the applicants with a point-by-point review of the Reesor Road Consultation and Documentation Record as it did for the Consultation and Documentation Record for another property specified in the *EBR* application.

The ECO has commented before in such cases that MOE should not equate turning down a bump-up request with the assumption that a proponent is in compliance with a Class EA and the *EAA*. MOE's response to the applicants, stating that there was no need to bump-up the project to a Category C project, did not persuade the ECO that ORC complied with the requirements of the Class EA in carrying out this land sale.

The ECO accepts MOE's conclusion that ORC was in compliance in categorizing the sale as a Category B project. However, the ECO does not believe that MOE properly assessed ORC's compliance with the requirements for carrying out a Category B project for Reesor Road, nor that ORC met those requirements. It appears to the ECO that MOE condoned ORC non-compliance with the Category B requirements of the Class EA, and failed to review other matters of compliance that should have been investigated. Finally, MOE made incorrect and misleading statements to the applicants in its defence of ORC's actions.

(For more detail on this application, see the Supplement to this report, pages 269-276)

Reeser Road property – the private prosecution

The applicants and other parties remained concerned about the Reesor Road land sale. In July 2002, David Sanford, representing the Huron Wendat First Nation, commenced a private prosecution in the Ontario Court of Justice, alleging that ORC failed to conduct a proper environmental assessment before selling the Reesor Road property. He alleged ORC did not follow the mandatory procedures for completing a Category B land sale. One of the *EBR* applicants assisted Mr. Sanford in the private prosecution.

In the Supplement to our 2002/2003 annual report, the ECO said we would monitor the court case and report the outcome in the next annual report. The ECO did not comment on MOE's conclusions regarding the investigation because we did not want to influence the court case. In January 2004, the Environmental Commissioner was compelled to testify at the trial. The Commissioner testified it was his view that: ORC was obliged by its Class EA to consult relevant aboriginal groups; that there was no indication that ORC had undertaken any consultation with aboriginal groups; and that he disagreed with MOE's conclusion on the *EBR* investigation that ORC was in compliance with its Class EA on this land sale.

On May 17, 2004, Justice of the Peace Sunny Ng found ORC guilty of an offence under the *Environmental Assessment Act* and fined the agency $7,500. The maximum fine for a first offence is $10,000. A written decision has not yet been released, but according to press reports, Justice Ng stated that the requirement to consult was mandatory and that ORC had made no attempt to consult, despite its assertion to the contrary. He said ORC had a clear obligation to fully consult with aboriginal people and other involved parties on any land sale. He said there was no documented evidence that contact had been made with interested First Nations and ruled that the Ontario Government had neglected its fiduciary responsibility to aboriginal people by not consulting with them before the sale.

ECO Comment

This private prosecution is groundbreaking, and should serve as a wake-up call to environmental assessment proponents and to the Ministry of the Environment. Although the Class EA process is designed to be self-regulating, proponents must follow their approved processes and any terms and conditions. The ECO notes that MOE remains responsible for monitoring and enforcing compliance, and for responding to *EBR* investigations and other complaints.

It is noteworthy that many applications for investigation under the *EBR* have involved alleged violations of Class EAs and concerns that proponents were not adequately monitored by MOE. Also, this was the second time in five years that an environmental group felt compelled to go to the courts to bring attention to MOE's inadequate enforcement of the *Environmental Assessment Act*. These applications for investigation and court proceedings reinforce the need for MOE to take its responsibility for monitoring Class EAs seriously.

(See pages 52-59 of this report for further discussion of environmental assessment issues.)
(For mininstry comments, see page 200-201.)

Recommendation 7
The ECO recommends that MOE review the need to amend the Environmental Assessment Act *to provide a two-year statute of limitations for prosecutions.*

PART 4

Ministry Environmental Decisions

Each year the Environmental Commissioner of Ontario reviews a sample of the environmentally significant decisions made by the provincial ministries prescribed under the *Environmental Bill of Rights*. During the 2003/2004 reporting year, 2,010 decision notices were posted on the Environmental Registry by Ontario ministries. Decision notices were posted for the following:

- 33 Policies
- 4 Acts
- 24 Regulations
- 1,949 Instruments

The extent to which the ECO reviews a ministry decision depends on its environmental significance and the public's interest in the decision. The ECO undertook detailed reviews of the 16 decisions that appear in the Supplement to this annual report. The ECO has also summarized and highlighted 10 of these decisions in the following pages of this report.

The Nutrient Management Regulation

The introduction of government-mandated nutrient management has been one of the most contentious issues faced by rural Ontarians in years. The Ministries of the Environment and Agriculture and Food have met with numerous farm organizations, municipalities and individuals across the province since consultation on a proposed legal and regulatory framework began in 2001. On September 30, 2003, the first regulation, O.Reg. 267/03, under the *Nutrient Management Act, 2002 (NMA)*, came into force. The regulation, later amended, sets forth rules for farm operations of different sizes and is aimed at reducing the risk of nutrients entering surface or groundwater.

The *NMA* defines nutrients as materials that are applied to land for the purpose of improving crop growth. They include materials from agricultural sources such as manure and washwater, and from non-agricultural sources such as biosolids from sewage treatment plants and sludge from pulp and paper mills.

The regulation defines the size of a farm operation in terms of nutrient units, based on the amount of manure that could be generated given the capacity of the farm to house livestock. One nutrient unit (NU) is the amount of manure equivalent to the commercial fertilizer replacement value of the lower of 43 kg of nitrogen or 55 kg of phosphate. This allows OMAF to compare, for example, hog farms with poultry farms. The regulation does not restrict the number of animals that a farm operation can have.

Based on farm size, O. Reg. 267/03 sets forth different rules for four NU categories of farm operations:

- 300 NU or more (e.g., at least 210 milking Holstein cows).
- 150 NU or more but less than 300 NU (e.g., at least 105 but less than 210 milking Holstein cows).
- More than 5 NU but less than 150 NU (e.g., more than 3 but less than 105 milking Holstein cows).
- 5 NU or less (e.g., 3 or fewer milking Holstein cows).

How big is 300 Nutrient Units?

300 milking Jersey cows

210 milking Holstein cows

300 beef cows (includes unweaned calves)

1,800 finishing pigs (60 – 230 lbs)

80,000 sq. ft. of growing area for chicken broilers

45,000 laying hens

Nutrient management strategies and plans

As of September 2003, new livestock farms that are over 5 NU and existing livestock farms expanding to 300 NU or more were required to complete a nutrient management strategy (NMS) that includes information on its operation, how much nutrient is produced, how it will be stored, an analysis of its nutrient content, and where it will be used. A livestock farm that is required to have an NMS and that applies nutrients to agricultural land must also have a nutrient management plan (NMP) that includes information about the farm and its fields, an analysis of the nutrients to be applied, how much will be applied and at what rate, and how the nutrients will be stored. NMPs and NMSs for new livestock operations of 150 NU or more and existing livestock farms of 300 NU or more must be approved by OMAF.

Large sewage treatment plants are required to comply by January 1, 2005, and existing agricultural operations of 300 NU or more by July 1, 2005. An implementation date of 2008 has been proposed for remaining livestock operations.

Standards related to farm practices

Farm operations requiring NMPs and/or NMSs are also required to comply with rules related to the application of nutrients, outdoor livestock housing systems, siting and construction of barns that contain manure storages, and sampling, analysis and quality of nutrients. These rules are intended to reduce the risk of nutrients entering surface or groundwater and wells, or of nutrients being over-applied to land. Factors such as depth to groundwater, type of soil, type of nutrient, slope of the land, and distance to wells and surface water must be documented in the NMP.

All farm operations, regardless of size, are banned from using high-trajectory application systems – spray guns – for non-agricultural source nutrients. All farm operations are also required to comply with new rules for spreading of biosolids.

Implications of the decision

One goal of the regulation was to provide consistent province-wide rules. However, according to OMAF, farms representing at least one-quarter of the manure produced on Ontario livestock farms, or about 1,100 farms, will become regulated on July 1, 2005. The remaining 58,600 farms will remain subject to municipal bylaws, where they exist, until at least 2008. As a result, it may be difficult for the public to know what rules are being applied and by whom.

Regulated farms will have additional paperwork to prepare – NMSs/NMPs for large farms can be 100 pages long. In addition, soil and nutrient testing by accredited laboratories, which is required in some instances, may be a challenge to arrange in some areas. Due to restrictions related to soil type, depth to bedrock, setbacks and existing nutrient load, some farmers may not be able to apply nutrients on land previously used for that purpose. Some farmers may also be required to construct or upgrade their facilities or equipment.

Public participation and the EBR *process*

OMAF received more than 550 written submissions and staff heard 190 presentations on the proposal for this regulation. Farm groups were concerned about the cost of implementing these rules and availability of financial assistance, the complexity of the regulation, and technical issues such as the minimum depth to bedrock and winter spreading of nutrients. Environmental groups emphasized the need to protect the environment and suggested that farms should be treated like any other industry.

ECO Comment

Many potential sources of contaminants that degrade water quality – industry, sewage treatment plants, and septic systems – have been subject to legally enforceable rules for decades. However, manure, agricultural runoff and other materials containing nutrients such as biosolids are also known to degrade water and may contain pathogens such as *E. coli*. Biosolids are also known to contain metals that may be toxic to plants and animals. The *NMA* is intended to manage nutrients, e.g., manure and biosolids, in ways that protect the natural environment. However, standards for metals apply only to non-agricultural source materials and standards for pathogens apply only to biosolids. Farmers are expected to apply nutrients to their land at a rate that meets the requirements of their crops without causing a build-up of nitrogen or phosphorous or the potential for runoff. This regulation requires farmers to test their soil and nutrients periodically to assist them in determining the most appropriate application rates. However, since the majority of the rules will not apply to most farms in Ontario, until at least 2008, this regulation does little to reduce degradation of water quality due to nutrient mismanagement.

In our 2002/2003 annual report, the ECO noted that key aspects of water quality protection have yet to be developed, including watershed-level protection of drinking water sources. This remains the case, and superimposing nutrient management plans onto watershed-based source protection plans will be a technical and political challenge.

In 2002 and 2003, the ECO urged OMAF to prescribe the *NMA* under the *EBR*, and to prescribe NMPs and NMSs for large farms and biosolids as instruments under the *EBR* so that they can be posted on the Registry and be subject to comment by the public. Neighbours, for example, are not able to verify that the location of wells and waterbodies on their properties are clearly identified on a farmer's NMP, nor will they have a full understanding of the quantity and nature of the nutrients being applied in the vicinity of their wells. Prescribing the *NMA* under the *EBR* would give farmers and the public the right to ask the government to consider modifications to the *NMA* and O. Reg. 267/03. In addition, the public, including farmers, are now not able to file applications for investigation requesting the government to investigate possible violations of the *NMA* or O. Reg. 267/03. The ECO believes that OMAF and MOE, which assumed responsibility for the monitoring, compliance and enforcement aspects of the *NMA* in November 2003, should work together to ensure that the public participation rights established under the *EBR* are adapted.

O. Reg. 267/03 is a major step forward in nutrient management. It provides a comprehensive set of rules for managing nutrients, and has served as a vehicle for public discussion of agricultural practices in Ontario. It also gives farmers currently not covered by the regulation an indication of what may be expected of them in the future. However, the ECO believes that in the short and medium term this regulation will do little to allay the concerns of the public, especially in some rural areas. *(For mininstry comments, see page 201.)*

Recommendation 8

The ECO recommends that OMAF and MOE work together to ensure that the Nutrient Management Act *is prescribed under the* EBR *and that nutrient management plans and nutrient management strategies for large farms and biosolids are classified as instruments under the* EBR.

The Waste Diversion Program for Blue Box Waste

Description

Waste management has been one of the most controversial issues in Ontario over the past four years. Ever since the Adams Mine controversy re-emerged in the late 1990s, policy makers have focused on how to divert more waste from disposal. One such program, the municipal Blue Box system, was given a boost in December 2003, when the Minister of the Environment approved the Blue Box Program Plan (BBPP) under the *Waste Diversion Act (WDA)*.

Under the BBPP, industries (called "stewards") that generate printed paper and packaging materials which enter the municipal Blue Box system are required to fund 50 per cent of the total net costs of the residential stream of the system – approximately $3 million each month – beginning February 2004. (Under a *de minimis* rule, small companies that meet certain criteria are exempt from paying fees.) The BBPP also describes initiatives to increase the recovery rate for Blue Box waste and reduce costs by improving the efficiency of the system.

Waste Diversion Ontario (WDO), created by the Ministry of the Environment in 2002, established Stewardship Ontario to represent the stewards and to prepare a draft Blue Box Program Plan. The WDO sent the draft program to MOE in February 2003 for approval, and the ministry posted it on the Environmental Registry for public notice and comment.

Definitions of Blue Box waste

There are now two Ontario regulations that define Blue Box waste: O.Reg. 101/94, for municipalities, dating back to 1995; and O.Reg. 273/02, for stewards, dating from February 2004.

O. Reg. 101/94 under the *Environmental Protection Act* requires that all municipalities with a population of more than 5,000 provide residential recycling. Basic Blue Box materials are defined as newsprint and food and beverage containers made from aluminum, steel, polyethylene terephthalate (PET), or glass. Supplemental Blue Box waste includes aluminum foil, fine paper, textiles and magazines. Municipal Blue Box systems are required to collect the basic materials, plus at least two supplemental wastes.

On September 23, 2002, the Ontario government passed O. Reg. 273/02, which defines Blue Box waste as "glass, metal, paper, plastic, textiles." Stewards are expected to comply with this regulation by paying a fee based on how much waste the steward generates for each of these materials. Municipalities will continue to collect Blue Box waste as defined under O. Reg. 101/94, and since they collect only packaging and printed materials, it was decided that the BBPP would include only these materials.

Diversion targets

One of the key expectations of the BBPP is the setting of diversion targets, i.e., the amount of Blue Box waste that will be diverted from landfill into the recycling stream in a year. The BBPP estimates the target diversion rate for 2003 as 45 per cent (the actual diversion rate in 2000). The BBPP also proposes a second diversion scenario of 50 per cent, to be achieved by 2006. Diversion targets for specific Blue Box materials, such as glass, paper, and aluminum were not provided.

The primary objective of the BBPP is to define a funding mechanism for the residential stream of the Blue Box system, describing how the total municipal net cost and total stewardship fee are calculated, as well as determining the amount owed to each municipality and owed by each steward. (A detailed description of the funding mechanism can be found in the Supplement to this report, pages 114-129.)

Market development

The BBPP includes several market development initiatives to increase diversion rates. During the first year, the priority will be to prepare market development plans for each type of material marketed and to address issues related to glass. Stewardship Ontario will investigate the need for a glass recycling facility and alternative market outlets for recovered glass. Since Stewardship Ontario's projections indicated that program costs could double within five years, the BBPP included several strategies to contain these costs. Strategies include identifying the true market value of Blue Box materials, working toward reducing excess capacity in municipal recycling facilities, and investigating new technologies.

Implications of the decision

The economic impact of the BBPP on stewards in Ontario is significant: stewards will contribute $34 million toward municipal Blue Box systems in 2004. Stewardship Ontario expects about 4,500 stewards to be registered in the BBPP in 2004 (although the Canadian Federation of Independent Businesses estimates that 85 per cent of its 40,000 members will be exempt under the *de minimis* rule for sales). The impact is also significant from a process perspective: stewards must be able to track the amount and type of packaging used in their consumer products sold in Ontario and on which they will be charged a levy. (For estimated levies for specific BBPP materials, see page 123 of the Supplement.)

Although municipalities are still expected to fund, on average, 50 per cent of their net costs, this injection of cash into a system that has been primarily funded for years through property taxes is welcomed by municipalities. It's estimated that northern programs will receive more than the provincial average per tonne allocation. Municipalities will also have promotional support provided by the CNA/OCNA (newspaper associations) in-kind contribution of $1.3 million as advertising.

Since fees increase as the quantity of Blue Box material produced by stewards increases, stewards may look at ways to decrease their Blue Box material by redesigning their packaging or may switch to a material that they perceive to be more favourably treated under the BBPP but that, unfortunately, may have a lower recycling rate.

Public participation and the EBR *process*

Opportunities for stakeholders to comment on the proposed BBPP were provided at two stages – during the initial drafting of the BBPP and again when it was posted on the Environmental Registry. MOE received 90 submissions during the 60-day comment period. Industry raised numerous concerns about the complex fee calculations, the frequent changes

The Need to Increase Aluminum Soft Drink Can Recovery Rates

One troubling aspect of the Blue Box system (BBS) is that approximately one billion – one thousand million – aluminum soft drink (SD) cans are not recycled by Ontarians each year and are being sent to landfills and other disposal facilities.

The recovery and recycling of aluminum cans are important for several reasons. First, recycling these containers conserves very large amounts of energy and raw materials. Second, the extraction and processing of the raw materials needed to make new cans release large quantities of pollutants and greenhouse gases (GHGs). In 2003, the World Watch Institute estimated that making 1 million tonnes of aluminum cans from virgin materials requires 4.95 million tonnes of bauxite ore and the energy equivalent of 35 million barrels of crude oil. Recycling the cans, in comparison, saves all of the bauxite and more than 75 per cent of the energy, and avoids production of about 75 per cent of the pollutants. Recycling just one aluminum can saves enough electricity to run a laptop computer for 4 hours. The aluminum industry also significantly affects climate change. One 1992 Environment Canada report estimated that the aluminum sector in Canada was producing GHGs equivalent to 6 per cent of Canada's entire output of carbon dioxide because the manufacturing process emits perfluorocarbons (PFCs) – and the impact of PFCs is 6,500 to 9,200 times higher than that of carbon dioxide.*

Initially, aluminum SD can recovery rates for the BBS were very low. One 1989 study estimated that only 5 per cent of aluminum SD cans sold in Ontario were recycled in the BBS. However, there were steady gains throughout the early and mid-1990s and, in our 1998 annual report, the ECO approvingly cited a study stating that approximately 35 per cent of cans sold in Ontario were recycled in the BBS in 1997. In contrast, most Canadian jurisdictions with deposit-refund systems regularly capture 65-85 per cent of cans and other SD containers sold and some beverage container deposit-return systems recover much more. In 2002, the Brewers of Ontario reported that more than 91 per cent of the beer cans and 98 per cent of beer bottles sold at the Beer Store chain it runs were returned for deposit.

Based on audits of residential garbage, Waste Diversion Ontario (WDO) estimates that only 42 per cent of aluminum SD cans in 2002 were recovered in the BBS. This means that approximately one billion cans – worth about $25.5 million – escaped collection in the BBS and may have ended up in landfills. The manufacturing of rolled-aluminum sheet to make those cans is equivalent to 900 billion watt-hours of energy, equalling the total output required to power 125,000 Ontario homes for one year. In addition, about 54,000 tonnes of GHG emissions could be avoided if all of these cans were recycled.

Drawing on historical data for Ontario SD container sales, the ECO estimates that between 9 and 11 billion aluminum cans produced in the residential and the industrial, commercial and institutional (IC&I) sectors were sent to disposal facilities by Ontarians between 1994 and 2003. Meanwhile Michigan State, which has had a deposit-refund system for containers since 1976, passed legislation in March 2004 allowing inspectors to ban imports of solid waste from Ontario if the shipments contain large quantities of recyclable containers, and in May 2004, secured additional resources from the US federal government to begin enforcing this law beginning in October 2004.

There are many factors that partly explain why the Ontario BBS has never achieved the high SD container recovery rates that were predicted in 1985 when the BBS was formally announced by MOE. As reported in the ECO's 2001/2002 annual report, recycling programs in the IC&I sectors (including apartment buildings) are underdeveloped and, in some cases, non-existent, in contravention of O. Regs. 102/94 and 103/94 under the *Environmental Protection Act*. Some experts also point out that away-from-home consumption of soft drinks has increased significantly in the past decade and only a small proportion of these containers are recycled because infrastructure is underdeveloped. Moreover, much more needs to be done to educate the public about the need to recycle aluminum SD cans and other beverage containers in the BBS. The ECO has learned that some aluminum SD cans generated in the IC&I sectors are being recycled by service clubs and other collectors. But this is taking place despite the lack of enforcement of O. Regs. 102/94 and 103/94 by MOE and could divert aluminum cans from collection in the residential BBS.

The ECO believes that MOE should set an ambitious recovery rate for aluminum cans based on recovery rates that are achieved by deposit-refund systems in other Canadian jurisdictions. To this end, the ECO commends MOE for directing the WDO in early 2004 to increase diversion rates for residential recyclables to 60 per cent by 2008. However, unless MOE sets a strong target for the IC&I sectors and establishes consequences for non-compliance, it seems unlikely that aluminum SD can recovery rates will significantly improve in the short term.

* Since the mid-1990s, Canadian aluminum manufacturers have made significant reductions in their discharges of GHGs because they have shifted production to newer facilities. For example, in 2003 Alcan reported that its worldwide operations had reduced their GHG emissions by approximately 1.45 million tonnes per year in 2001 and 2002, an overall cut of 15 per cent compared to 1999 levels.

to the formulae during the initial consultation period, and the definition of "steward." Some industry representatives noted that a weight-based levy creates a bias against heavy packaging like steel, glass and paper, and that the BBPP promotes contamination of recyclable materials. Some industry spokespeople have indicated that existing glass recycling facilities are under-utilized. Industry also suggested that the proposed levy actually discourages recycling of some materials since the more that is recycled, the more industry is required to pay. Industry was particularly concerned with the BBPP's overhead costs and with the projected municipal costs, over which it has no direct control.

Municipalities were supportive of the proposed BBPP and urged MOE to approve it as soon as possible. However, eastern and northern Ontario and rural municipalities expressed concern that estimates of net costs were far below their actual net costs. Municipalities also questioned the value of the CNA/OCNA in-kind contribution, since they have found newspaper advertising to be ineffective in changing recycling habits.

The Canadian Environmental Law Association (CELA) noted that the BBPP did not include diversion targets for most years, that it did not provide sufficient incentive for brand owners to choose highly recyclable packaging, and that the reporting requirements were not sufficient to verify that diversion targets are being met. The Recycling Council of Ontario noted that the BBPP did not include any direct initiatives to reduce or reuse Blue Box wastes and was very disappointed that the diversion target is only 50 per cent. It was also concerned that in order to reduce their fees, stewards may switch to lighter-weight packaging, despite its being generally less recyclable, and that stewards are not being encouraged to use recycled content.

MOE response to comments

In addition to posting the draft BBPP on the Environmental Registry, MOE also held two Round Table stakeholder meetings to discuss a number of concerns. In response to comments from the public and from stakeholders, MOE requested that the WDO submit policies and practices by March 2004 that would lead to at least a 60 per cent diversion by 2008 through reduction, reuse or recycling. Since MOE believed the most pressing issue was the long-term containment of municipal Blue Box system costs, the ministry has asked the WDO to prepare a cost containment strategy, including policies and practices related to containing municipal costs and keeping WDO and Stewardship Ontario administrative costs to 5 per cent of total program costs. MOE also asked for target diversion percentages for each Blue Box material, benchmark diversion targets for municipalities, and a projected schedule of stewardship fees.

ECO Comment

In our 1998 annual report, the ECO recommended that MOE promote product stewardship, requiring industry to take increased responsibility for the management of the wastes associated with their products. With BBPP, MOE has taken some modest steps toward implementing product stewardship for Blue Box materials and has fundamentally changed how diversion of these materials is funded. The BBPP has met the primary objective of funding 50 per cent of the total net costs of the municipal Blue Box system by levies charged to stewards, even though some stakeholder concerns have yet to be fully addressed. It will take time to determine whether the other objectives of increasing the diversion rate for Blue Box materials and improving the efficiency of the municipal Blue Box system are being met.

Increasing the diversion rate

The ECO is disappointed that the BBPP adds further expense to the Blue Box system without a clear commitment to improving the diversion rate, and without material-specific diversion targets. It will be important that these targets are defined to ensure that less and less packaging goes to landfill in the future.

One of the primary objectives of the *Waste Diversion Act* is to "promote the reduction, reuse and recycling of waste." Although significant reductions in the amount of packaging were made in the 1990s, many Ontarians still believe that products are over-packaged. In addition, reuse initiatives have been limited. The ECO is encouraged that the Minister of the Environment has asked the WDO to consider reduction and reuse initiatives as a means of achieving 60 per cent diversion by 2008.

It has been suggested that the regulation affecting municipalities, O. Reg. 101/94, be modified to include more materials to bring it in-line with the broader definition of Blue Box system wastes in O. Reg. 273/02. This would have the potential of diverting more waste from landfill without necessarily requiring that additional facilities be built. The ECO agrees that a review of O. Reg. 101/94 is warranted and urges MOE to consider this option, in consultation with the WDO and other stakeholders, as a possible way to increase diversion rates.

Improving efficiency

Some industry representatives and CELA are concerned that the levies encourage stewards to change packaging materials to those that result in the lowest stewardship fee. They have warned that some stewards may switch to plastics (e.g., from glass), which would decrease the diversion rate and increase net costs. The ECO does not expect that many stewards will switch, however, since the decision involves numerous factors, not just stewardship fees. However, if such changes do occur, they may be very difficult to reverse, and the ECO urges MOE to monitor changes in packaging closely to ensure that the stated objectives are achieved.

Transparency

Although the BBPP includes a description of the formula for calculating stewardship fees, the actual formula has not been made available. Industry is allowed to view the formula under Stewardship Ontario's supervision, but in the opinion of the ECO, this approach is impractical for the estimated several thousand stewards and further undermines trust in a process that has already been found to be faulty, according to some stewards. The ECO urges MOE to require the WDO and Stewardship Ontario to make the formula public so that it can be independently reviewed for integrity and fairness.

The BBPP is a long and complex document that is not easily understood by the general public. The ECO believes that plain language material should be developed to assist the public in understanding the BBPP, making it easier for them to participate in future revisions to this program.

Conclusion

The BBPP does achieve its objective of having industry fund 50 per cent of municipal net costs for the residential stream of the Blue Box system. But considerable work remains to be done if significant improvements are to be achieved in diversion rates and in the effectiveness and efficiency of the system. Furthermore, the BBPP has been developed without the benefit of an overall waste management strategy. The *Waste Diversion Act* provides a framework for developing waste management programs for specific wastes, but this piecemeal approach to program development means that large sectors of the economy, such as the industrial, commercial and institutional sectors, are not necessarily brought under the *WDA* umbrella. The ECO believes that some of the concerns of stewards would be addressed if they were assured that generators of waste that goes to landfill or incineration would also be required to pay the costs of managing their wastes. This could be further supported by enacting legislation under s. 88 of the *Environmental Protection Act* prohibiting the use or sale of certain types of packaging, and prohibiting products that pose waste management problems.

The ECO is pleased that the Minister of the Environment has recognized that significant concerns remain outstanding and has requested the WDO to prepare policies and procedures to achieve 60 per cent diversion by 2008 and to continue work on a cost containment strategy. Finally, the ECO understands that the BBPP represents a significant change for stewards and that it requires time to be understood and implemented. As the full implications of the BBPP become apparent, the primary stakeholders – the municipalities and the stewards – must be prepared to modify the BBPP and the Blue Box system to ensure that the original objectives are being achieved and to build industry and public confidence.

New Drinking Water Regulation under the *Safe Drinking Water Act, 2002*

On June 1, 2003, O. Reg. 170/03, the new Drinking Water Systems Regulation (DWSR) under the S*afe Drinking Water Act (SDWA)*, came into effect. The purpose of the DWSR is to provide safe drinking water to all residents of Ontario by stipulating minimum standard requirements for eight different categories of drinking water systems (see below). The regulation consolidates the requirements from O. Reg. 459/00, Drinking Water Protection Regulation for Larger Waterworks, and O. Reg. 505/01, Drinking Water Protection Regulation for Smaller Waterworks serving Designated Facilities, both under the

Ontario Water Resources Act (OWRA). The DWSR also covers other systems previously not regulated, including smaller residential systems and commercial and institutional systems serving drinking water to the public.

Eight Categories of Drinking Water Systems Outlined in O. Reg. 170/03

Large Municipal Residential

Serves a major residential development of more than 100 private residences.

Small Municipal Residential

Serves a major residential development of fewer than 101 private residences.

Large Municipal Non-Residential

Does not serve a major residential development and is capable of supplying drinking water at a rate of more than 2.9 litres per second.

Small Municipal Non-Residential

Does not serve a major residential development and is capable of supplying drinking water at a rate of no more than 2.9 litres per second and serves a designated facility or a public facility.

Non-Municipal Year-Round Residential

Serves a major residential development or a trailer park or campground with more than 5 service connections.

Non-Municipal Seasonal Residential

Serves a major residential development or a trailer park or campground that has more than 5 service connections.

Large Non-Municipal Non-Residential

System capable of supplying drinking water at a rate greater than 2.9 litres per second and does not serve a major residential development or a trailer park or campground with more than 5 service connections.

Small Non-Municipal Non-Residential

System not capable of supplying drinking water at a rate greater than 2.9 litres per second and serves a designated facility or public facility but does not serve a major residential development or a trailer park or campground with more than 5 service connections.

For each of the eight different categories of drinking water systems, the DWSR outlines drinking water quality standards, approvals, minimum levels of treatment, procedures for operational checks, sampling and testing, and requirements for posting warning notices when the regulation cannot be met. The key requirements for each category are outlined in the table on this page.

In Part Two of the Walkerton Inquiry Report, Justice O'Connor noted that the requirements under O. Reg. 459/00 may have been stricter then necessary. As a result, the Ministry of the Environment changed some of the requirements under the DWSR. They include:

- decreased frequency requirement for chemical sampling.
- a move from quarterly to annual reporting.
- a requirement that an engineering report be done every five years for surface water and every 10 years for ground water, as opposed to every three years.
- technical changes that address automated reporting systems.

Public participation and the EBR *process*

On January 14, 2003, MOE posted a notice about the proposed DWSR on the Environmental Registry and provided a 60-day comment period. In total, the proposal received 68 comments. They included concerns over the lack of cross-connection control to address the hazards of backflow from private plumbing systems connected to public water distribution systems. There was also concern that an Advisory Council had not yet been established to make recommendations on risk-based standards, and that source protection policy and legislation had not yet been developed. Stakeholders were also concerned about the financial costs associated with the new approval and testing requirements, especially for small systems, and that because of the limited number of accredited labs and engineers, especially in remote areas, it would be difficult to meet testing and approval demands. None of these comments from the public led to changes in the proposed DWSR.

However, public comments did lead to changes in the proposed annual reporting calendar, which initially was to cover the period between August 1 and July 31 for all systems. Seasonal drinking water suppliers, especially, would have found it difficult to report according to this time period. Instead, under the changes, non-municipal seasonal residential and large non-municipal non-residential systems will report for the period November 1-October 31, and small non-municipal non-residential systems for the period April 1-March 31. Stakeholder comments also led to the creation of a new Drinking Water Systems category, Small Municipal Residential, with requirements tailored to small systems and reduced microbiological testing requirements. Furthermore, MOE provided additional clarification on the requirements of testing, monitoring, recording and reporting data, on the categories of systems, and on the corrective actions necessary when requirements are not met. MOE also clarified when secondary disinfection is not required for point of entry treatment, the point where water from the system enters a building or other structure.

In early 2004, some rural municipalities and operators of non-municipal drinking water systems such as community centres began to sound alarm bells in the media and with their MPP's about the impact of O. Reg. 170/03 on their ability to continue to provide water supplies to their residents and clients. In June 2004, MOE amended O. Reg. 170/03 to provide some flexibility to certain system operators. For example, MOE is going to allow posting of signs in facilities like community centres until December 2004, warning potential consumers that the water has not been tested rather than requiring the facility to meet the strict testing requirements of O. Reg. 170/03.

ECO Comment

Ensuring that all Ontario waterworks supply safe drinking water is critical to the health and well-being of the residents of this province. The new Drinking Water Systems Regulation provides for the kind of sampling and testing of drinking water and reporting requirements that will allow the Ministry of the Environment to monitor Ontario's drinking water treatment and distribution systems. MOE should be commended for developing this regulation under the *SDWA*, and in particular, for providing background materials that support the implementation of this complex regulation. In safeguarding all drinking water systems in Ontario, the DWSR responds to some of the compliance problems that arose out of O. Reg. 459/00 and O. Reg. 505/01 under the *OWRA*.

However, the ECO agrees with the stakeholders who expressed concern for the continued lack of source protection policy and legislation in Ontario. As Justice O'Connor pointed out in the Walkerton Inquiry Report, multiple-barrier systems, including source protection, are essential for providing long-term safe drinking water, in order to guard against the failure of any one barrier.

In the past, MOE has focused its attention on treatment, on securing the distribution system, and on monitoring and planning responses to adverse conditions. However, MOE has failed to tackle the most ecologically significant unit of water management – the watershed. A watershed includes all lands that drain into a particular body, and as articulated by Justice O'Connor, is the most appropriate level where human activities that affect watershed health should be managed. A healthful watershed promotes the natural assimilative capacity and filtration ability of an aquatic ecosystem. The ECO commends MOE for taking preliminary action to promote source protection, a subset of watershed management, with the release of the White Paper on Source Protection in February 2004.

Although the DWSR is essential to the implementation of the *Safe Drinking Water Act*, MOE must develop an integrated policy on drinking water that also addresses concerns about source protection. The ECO will continue to monitor the implementation of the *SDWA* regulations, as well as the development of source protection legislation. *(For mininstry comments, see page 201.)*

Protecting the Kawartha Highlands: The First OLL Signature Site

The Kawartha Highlands Signature Site (KHSS) is one of nine Signature Sites identified in the July 1999 Ontario's Living Legacy (OLL) Land Use Plan. These areas, which were identified as warranting special planning strategies, exemplify Ontario's natural heritage.

Located 50 kilometres north of Peterborough along the southern edge of the Canadian Shield, the KHSS is a relatively undeveloped area encompassing more than 35,000 hectares. It features a rugged landscape of small lakes, wetlands, forests and rocky barrens.

The province committed to making the Kawartha Highlands Signature Site the largest protected area south of Algonquin Provincial Park. Although the process, which stretched over three years, was convoluted and often controversial, the final outcome was an enlightened piece of legislation that focused on protecting the biodiversity of the area.

In July 2000, the Minister of Natural Resources established a 12-member local stakeholder committee to carry out public consultation and make recommendations on guidelines for land use, the appropriate protection designation, and possible boundary refinements, all to be consistent with the policy direction provided by OLL. The overall goal for the committee was to develop recommendations so that the ministry could "protect the natural and recreational values" of the Kawartha Highlands.

Recognizing that local involvement and a common vision was essential to the planning process, the committee organized a comprehensive system of public consultation to gain an understanding of current issues and concerns. The consultation included direct mailings, newspaper advertisements and articles, workshops and open houses, a Web site, and the use of the Environmental Registry.

Public consultation – Stage One

In Stage One of the consultation, which began September 2000, approximately 400 people attended a series of open houses, and 57 presentations and approximately 175 written submissions were made to the committee. Topics included protection of natural heritage features, maintenance of the semi-wilderness quality of the area, the impact of motorized recreation vehicles, siting of boundaries, appropriate levels of human access to the area, private property concerns of local residents and cottagers, the status of hunting camps located on-site, the uncertainty of future public funding, the lack of trust in government, and the nature of the future promotion of the site.

Public consultation – Stage Two

In August 2001, in Stage Two of the public consultation, the committee distributed more than 5,000 copies of its draft recommendations report. The stakeholder committee recommended that KHSS be a "made in Kawarthas" provincial park, with an interim management statement to be developed and implemented immediately. It also recommended adequate funding for park management and planning, and a co-stewardship management model with equal decision-making powers with officials from the Ministry of Natural Resources. Further, the committee suggested specific boundaries and zoning for the site, in addition to detailing appropriate allowable recreational activities.

In this phase of the consultation, there were 225 written submissions and 17 presentations to the committee, and 250 people attended an open house.

Public Consultation – Stage Three

In November 2001, in Stage Three of the consultation, the stakeholder committee submitted its final report to the minister. Following its original terms of reference as set forth by MNR and its draft recommendations, the committee recommended that MNR regulate KHSS as a provincial park under the *Provincial Parks Act*. The committee also recommended that MNR introduce new legislation to protect the area even further by means of a "Kawartha Highlands Provincial Park Act."

The committee made 24 recommendations with regard to allowable recreational and commercial activities. The final report recommended allowing most of the traditional uses of the area to continue – for example, that snowmobiling continue to be allowed on pre-existing authorized trail systems, but that no new trails be created. The continuation of sport hunting within the KHSS was also recommended, including giving existing hunting camps enhanced tenure. The committee also recommended that the recreational use of motorized all-terrain vehicles not be allowed in the KHSS.

The final recommendations report received a total of 621 comments. Thirty-one submissions were made on behalf of organizations, associations, municipalities, boards and the Ministry of Northern Development and Mines. A number of submissions complimented the stakeholder committee for the inclusive, balanced and transparent way in which the recommendations were developed.

The majority of comments expressed support for the recommendations, including broad support for the designation of KHSS as a regulated provincial park. Among those organizations supporting the committee's recommendations were the Partnership for Public Lands, the Canadian Parks and Wilderness Society, several cottager associations, and the Town of Bancroft. Supporters of the recommendations stated that regulating the KHSS as a provincial park would increase social, economic, and environmental benefits to the area, notably through the promotion of sustainable tourism opportunities, in tandem with the protection of the area's natural features and functions.

Recreation Reserve Act *(Bill 239)*

In December 2002, the Minister of Natural Resources introduced Bill 239, the *Recreation Reserve Act*, for First Reading in the legislature, stating that "the proposed legislation will address concerns brought forward by the local stakeholders during the recent public consultation process to determine appropriate protection for the Kawartha Highlands."

The proposed *Recreation Reserve Act* evoked a strong reaction from key stakeholders, since it reflected few of the stakeholder committee's recommendations. Most notably, Bill 239 proposed to regulate the KHSS as a new land use designation – a "recreation reserve" – rather than as a provincial park under the authority of the *Provincial Parks Act*. The intent of Bill 239 in designating the KHSS as a recreation reserve was to ensure "that the lands are used solely for recreational and non-industrial commercial purposes." Hunting, fishing, boating, and snowmobiling were to be permissible activities, including commercial activities such as fur harvesting and guided hunting. The proposed legislation contained no specific measures to protect the area's environment – its natural features and functions – nor did it require any management planning process for the site.

MNR received 3,765 public comments on its Environmental Registry proposal notice, the majority of which were form letters supporting Bill 239 from organizations such as the Ontario Federation of Anglers and Hunters, the Ontario Federation of Snowmobile Clubs, the Ontario Fur Managers Federation, and the Northern Ontario Sportsmen's Alliance.

Almost all of the submissions opposing the proposed *Recreation Reserve Act* expressed concern that the recommendations of the stakeholder committee – "to protect wild species, ecosystems or sensitive habitats" – had been completely ignored. Among those organizations opposed to Bill 239 were the Sierra Legal Defence Fund, the Canadian Parks and Wilderness Society, World Wildlife Fund Canada, and the Federation of Ontario Naturalists. Several of these organizations also commented that Bill 239 was in direct conflict with pre-existing MNR policies, including Ontario's Living Legacy, the Ontario Forest Accord, and the Room to Grow framework.

The Partnership for Public Lands also commented that Bill 239 was at odds with previous recommendations made by the Environmental Commissioner of Ontario. In our 2001/2002 annual report, the ECO recommended that MNR "create a new legislative framework for provincial parks and protected areas, including conservation reserves, with the mandate of conserving biodiversity."

On March 12, 2003, the Ontario government prorogued the legislature and all bills on the Order Paper, including the proposed *Recreation Reserve Act*, ceased to exist.

Kawartha Highlands Signature Site Park Act *(Bill 100)*

On March 18, 2003, the Premier announced that the government would work to reach consensus on appropriate levels of protection and traditional use for this area. As MNR observed later, "it was clear, from the public comments received in response to the *EBR* posting for the *Recreation Reserve Act* and the debate which continued after the comment period ended, that further discussion was required to find a broadly acceptable solution for the Kawartha Highlands Signature Site."

Closed-door consultations were held with members from the Partnership for Public Lands, the Ontario Federation of Anglers and Hunters, and the original stakeholder committee. The result was the development of a Charter for the KHSS. The Charter formed the basis of Bill 100, the *Kawartha Highlands Signature Site Park Act*, introduced for First Reading in the legislature by the Premier on June 17, 2003.

Given Third Reading two days later, this Act establishes the primacy of protecting the ecological integrity of the park. It also ensures the continuation of traditional non-industrial activities, provides greater private property assurances, and establishes a management advisory board that will have a substantial role in management planning and implementation. The Act has received Royal Assent, but as of March 2004, had not been proclaimed.

The purpose of the Act is to ensure that "the protection of the ecological integrity of the Kawartha Highlands Signature Site Park is recognized as the overriding priority in the management and administration of the Park, so as to preserve, protect and enhance the natural composition and abundance of native species, biological communities and ecological processes in the Park."

The *Kawartha Highlands Signature Site Park Act* allows for hunting, trapping and fishing to continue. The Act specifically prohibits prospecting, staking mining claims, developing mineral interests, commercial forestry and commercial electric power development. The Act also forbids the construction of any new roads within the park boundaries, with the exception of the possible construction of two new roads intended for visitor usage.

The Act formally establishes a management advisory board, responsible for the preparation of the management plan for the park. The board, representing a broad cross-section of stakeholder interests, was appointed in August 2003. The *Kawartha Highlands Signature Site Park Act* unequivocally requires that preparation of a management plan be initiated no later than one year after a date to be named by the Lieutenant Governor.

ECO Comment

The ECO commends the local stakeholder committee for its perseverance and commitment to developing recommendations for the protection of the Kawartha Highlands Signature Site. The committee undertook an extensive public consultation process on a high profile issue that dealt with many heated opinions on how this area should be managed. The committee was required to address how best to protect the natural environment of the site, yet also determine which recreational and commercial activities should be allowed.

The committee recommended to the Minister of Natural Resources that the KHSS be regulated as a provincial park, as well as introducing "made in the Kawarthas" legislation to exceed the limited provisions for protection found in the *Provincial Parks Act*. Instead, by introducing the *Recreation Reserve Act*, which failed to contain any significant provisions for environmental protection, the Minister of Natural Resources initially chose not to follow these recommendations.

The introduction of the *Recreation Reserve Act* jeopardized a long process of public involvement and participation guided by the stakeholder committee. This proposed Act was also contrary to the direction laid out by MNR's own policies. Ontario's Living Legacy, itself the result of several years of consultation and over 40,000 public submissions, established that the KHSS was to be regulated as either a provincial park or a conservation reserve.

In contrast, the *Kawartha Highlands Signature Site Park Act* represents a positive step forward for Ontario's system of protected areas. The KHSS is now the first – and only – provincial park in Ontario in which ecological integrity is the legal priority. It is also now the only provincial park that is unequivocally required to have a management plan. Unfortunately, the legislation is limited only to this particular protected area.

The ECO believes that the convoluted and controversial process that led to the *Kawartha Highlands Signature Site Park Act* illustrates the larger legislative and policy problems with Ontario's system of protected areas. MNR was required to pass the Act because the *Provincial Parks Act* is grievously outdated, having undergone little revision since its introduction 50 years ago. (See pages 41-47.)

A total of eight provincial parks existed when the current version of the *Provincial Parks Act* was passed in 1954. This antiquated Act now regulates 314 provincial parks. There have been dramatic improvements in our understanding of the ecological sciences and the role of protected areas since that time. The *Provincial Parks Act* and its underlying policies do not reflect these realities. With the exception of the KHSS, Ontario's provincial parks currently have no legal mandate to conserve ecological integrity or biodiversity.

When the ECO recommended that MNR "create a new legislative framework for provincial parks and protected areas" in our 2001/2002 annual report, MNR responded by admitting the need to revise the *Provincial Parks Act*, but added that the ministry considered the implementation of Ontario's Living Legacy a higher priority.

The *Kawartha Highlands Signature Site Park Act* demonstrates that revising the legislation governing protected areas and creating new protected areas are not mutually exclusive. The stakeholder committee's recommendations and the ministry's ensuing actions show that the two issues are inextricably related. Unless the legislation guiding all of Ontario's protected areas is revised, the ECO speculates that MNR will face the same obstacles with the eight other Signature Sites and all future provincial parks. The Ontario Legislature passed the very first *Provincial Parks Act* in 1913, realizing then that it was inefficient to pass legislation on a park-by-park basis. It is still true today. Now more than ever, the ECO believes that a single piece of legislation with a long-term ecological vision and explicit planning requirements is needed for all of Ontario's protected areas. *(For mininstry comments, see pages 201-202.)*

Environmental Assessment for Forest Management

In June 2003, the Ministry of the Environment approved a "declaration order" under the *Environmental Assessment Act (EAA)* allowing the Ministry of Natural Resources to continue managing Ontario's forests, subject to 55 terms and conditions. The Declaration Order Regarding MNR's Class Environmental Assessment for Forest Management replaces the 1994 Timber Class EA Approval issued by the Environmental Assessment (EA) Board. The EA Board had included a process for reviewing and possibly extending the approval in 2003, noting that its temporary term meant the approval would be tested in the forest.

The Declaration Order applies to the forest management planning process and the activities of access, harvest, renewal and tending. The activities include road building and using pesticides. Most of the work is carried out by the forest industry, but regulated by MNR under the *Crown Forest Sustainability Act (CFSA)*. The other conditions of the Declaration Order cover public advisory committees, scientific research and technical development, monitoring and reporting and administration of the approval.

In proposing changes, MNR removed much of the detail from the EA terms and conditions on the basis that the *Crown Forest Sustainability Act, 1994*, and its regulated manuals provide a more rigorous regime than did the former *Crown Timber Act* and the manuals in place when the 1994 Timber Class EA Approval was issued. MNR reasoned that the Declaration Order could now function as "enabling planning direction" and the detailed, technical direction would be provided in MNR's manuals.

The forest management planning requirements of the Declaration Order will be incorporated into the Forest Management Planning Manual (FMPM) by June 2004, (see the ECO review of MNR's public consultation process for the manual in the Supplement on pages 149-156). The requirements are fairly high-level; the details, for example the timing and specifics of public consultation opportunities, will be set out in the FMPM. This allows the ministry more flexibility to amend the FMPM from time to time, and to continue reviewing and amalgamating its existing forest management guides without having to amend the Declaration Order as well.

At the same time that MNR argued that the *CFSA* and its manuals now provide a more rigorous regime, it proposed some major changes to the forest management planning process which arguably make it less rigorous. These changes were proposed to reduce costs and "significantly reduce the planning effort and staff resources required." Other revisions reflect the transfer of responsibilities from MNR to the industry in the late 1990s. MOE accepted MNR's approach and rationales for the revisions to the terms and conditions.

The new Declaration Order replaces 115 terms and conditions and 25 appendices with 55 terms and conditions. The major changes include:

- Forest Management Plans will be prepared every 10 years instead of every five years.
- Details were removed from the public consultation, inventory, and data requirements
- The EA Board's restrictions on clearcut size were removed and replaced with the direction to follow MNR's current guide, as revised from time to time.
- No expiry date to the Declaration Order, but MNR has to prepare a report every five years.

Some products must be developed by June 2004:

- A regulation governing the conduct of independent audits.
- An action plan describing scientific studies on the effectiveness of the clearcut guide.
- A new provincial wood supply policy.
- Improvements to the forest compliance program.
- Revisions to the FMPM.

MOE's consideration of public comments

MOE said it received 58 letters about the proposed Declaration Order from aboriginal organizations, individual communities, members of the public and stakeholder organizations, as well as 545 form letters. MOE characterized the stakeholders' main issues as the wood supply strategy; clearcut size; roadless wilderness; old growth conservation; aboriginal consultation; expiry date for the Declaration Order; and accountability issues. MOE did not adequately respond to all of the issues that were raised. In some cases, the ministry simply repeated the terms and conditions or MNR's rationale for wanting the change.

A broad range of stakeholders, including environmental groups, First Nations, professional associations and government ministries, complained that their previous comments to MNR and MOE had not been addressed. Environment Canada said they had provided comments on three occasions to MNR and MOE, that their earlier comments had not been addressed and that the terms and conditions were still inadequate to protect non-timber values. However, the forest industry expressed support for the review process and the substantive changes to the terms and conditions.

MOE did respond to some of the other concerns identified by commenters, and restored to the Declaration Order some of the detail to terms and conditions that MNR had simplified. The ECO commends MOE's provisions: strengthening the compliance monitoring and forest operations inspections program; requiring scientific studies of the clearcuts guideline; improving the wildlife monitoring program; and requiring public review of the independent forest audit procedures.

ECO Comment

MOE's approval of this Declaration Order significantly weakens MOE's role in forest management. It does this by relaxing the terms and conditions, and by removing the requirement for MNR to re-seek approval. The public's ability to have MNR held accountable under environmental assessment rules has been lessened.

The public may still use the *EBR* investigation process to ask MOE to investigate alleged MNR contraventions of terms and conditions of the Declaration Order. Unfortunately, because most terms and conditions are less prescriptive than in the 1994 Class EA approval, it will be harder to allege non-compliance. For example, where a 1994 Class EA condition may have required MNR to meet a specific standard, the same condition in the 2003 Declaration Order may simply require MNR to follow its own guideline, as revised from time to time.

MOE has withdrawn from the role it was assigned in 1994 by the EA Board as watchdog over MNR's progress in implementing improvements in forest management. MOE rationalized this by asserting that the *CFSA* and its regulated manuals provide a rigorous framework for protecting forest sustainability, and any future changes to the manuals must be subject to public consultation. MOE and MNR make a valid point – that the *CFSA* and its regulated manuals set out an accountable regulatory framework for forest management activities. But MNR is currently revising and amalgamating its many guidelines and policies. As we report in our review of the Old Growth Policy, MNR is also moving policy direction out of the regulated FMPM and into "notes" and other less binding documents for flexibility.

MOE should probably have incorporated additional accountability checks and balances, especially given the concerns about MNR's past compliance. It is true that MOE's current approach is to approve Class EAs without an expiry date, but the other Class EAs require the equivalent to the Five-Year Report to be approved by MOE. MNR also has a poor record on submitting annual reports, yet MOE did not insert a deadline to require that reports be submitted on a more timely basis. This is something MOE has done in other recently revised and new Class EAs. And despite MOE's 2001 commitment to the ECO in response to several *EBR* investigations that it would carry out a third party review of MNR's annual reports, MOE did not carry out these reviews. The ECO reminds MOE that it is still important for the ministry to review MNR's annual reports and monitor MNR's compliance with the approval.

Because there is no expiry date to the Declaration Order, many commenters argued that the use of an "everlasting" approval with no expiry date allows MNR to escape accountability. The Ontario Professional Foresters Association noted that the Declaration Order's requirement for a five-year report contains no provision for independent verification, stakeholder challenge or even response and stressed that "an interactive independent public review must be a part of this Declaration Order. It is the most serious credibility issue in this entire process." The ECO finds this argument particularly persuasive and suggests that MOE propose an amendment to the approval to revise Condition 52 , which describes the five-year report on the Declaration Order, in order to provide for an opportunity for public input and response to the Report and a mechanism for MOE approval of the Report. The ECO also suggests that MOE use a third party to assist with their review of MNR's report.

The ECO is pleased that mandatory use of the Registry has been enshrined in several terms and conditions. Several policies and regulations have already been posted on the Registry, and MNR will still post information notices at each stage of public consultation

Roadless Wilderness Areas

In February 2003, the Wildlands League and Sierra Legal Defence Fund submitted an *EBR* application focused on the planning and management of logging road networks in Ontario's public forests, the need for access controls, and the preservation of roadless wilderness areas. The applicants requested that the Ministries of Natural Resources and Environment review all existing policies, Acts, regulations, and instruments, as well as consider the need to develop new legal mechanisms if necessary. Both ministries denied the application. (See pages 202-207 and 242-248.)

Logging roads provide access to the forest for many activities. Although some of these uses, like camping and canoeing, generally have a modest environmental impact, others, like mineral exploration and extraction, motorized hunting and fishing, have the potential to create significant negative impacts on ecosystems. In 2001, MNR estimated that approximately 80 per cent of the logging road network is open to public use in Ontario.

Condition 106 of the 1994 Timber Management Class Environmental Assessment Approval required MNR to develop a provincial policy on roadless wilderness areas within three years. The EA Board stated that "roadless wilderness areas are a matter of provincial interest comparable to timber management decisions that need to be made about landscape management and biological diversity."

In 1997, MNR released Ontario's Approach to Wilderness: A Policy. However, the ECO believes that this policy did not meet the terms and intent of the 1994 Timber Class EA. This policy does not address roadless wilderness areas in the Area of Undertaking for commercial forestry since it primarily deals with those already found in protected areas – areas already closed to forestry.

It is the position of MOE and MNR that this policy met the requirements of Condition 106. As such, MNR recommended to MOE in its review of the Timber Class EA that this condition be dropped from the revised EA approval issued in 2003, stating that the wilderness park class target had been achieved to the extent possible within the Ontario's Living Legacy (OLL) planning area and that "by definition, wilderness parks and wilderness zones in other types of parks are roadless."

The ECO observes that OLL did not in fact create any new wilderness class parks and, therefore, did not significantly affect the quantity of roadless wilderness areas in the province. The ECO also notes that MNR admitted that it was still trying to figure out how to address the commitment made in the policy to consider wilderness values on the "intervening landscapes …outside parks and protected areas," such as in forest management units.

MOE received hundreds of comments on the proposed Declaration Order requesting a condition that would require MNR to develop a policy to maintain roadless wilderness areas outside of parks and protected areas. These comments came from disparate stakeholders such as environmental groups, tourism associations, and foresters, as well as from a letter-writing campaign. Unfortunately, MOE chose not to include a condition for roadless wilderness areas. The ECO is concerned that the public interest is no longer buttressed by an active EA Board condition for MNR to plan for roadless wilderness areas in the area where commercial forestry is undertaken in Ontario.

The ECO believes that the recent revisions to the Timber Class EA and the Forest Management Planning Manual do not sufficiently address roadless wilderness areas within the Area of Undertaking. The ECO encourages MNR to consult on and develop a policy that explicitly addresses roadless wilderness areas, including forest road access and decommissioning roads, within the Area of Undertaking for forestry operations. The ministry should also ensure the provision of sufficient resources to enforce and monitor the field-based results of such a policy. *(For mininstry comments, see page 202.)*

during the development of Forest Management Plans. But because the term of these Plans has been changed from five to 10 years, there will be a longer gap between public consultation opportunities. The ECO will review the impact of the changes to the forest management planning process on public consultation in our review of the revised FMPM in our 2004/2005 annual report.

(The ECO has several other articles related to this decision in this annual report, including Ontario's Forest Compliance System, pages 129-131, Forest Management Policy for Old Growth, pages 99-104, and Monitoring of Ecosystem Indicators, pages 64-68.)

(For mininstry comments, see page 202.)

Recommendation 9

The ECO recommends that MOE amend MNR's Declaration Order for Forest Management to provide an opportunity for public response to MNR's Five-year Environmental Assessment Report and to incorporate a requirement for MOE to approve the Report.

Forest Management Policy for Old Growth

Introduction

For the first 200 years of logging in Ontario, the very best and largest pine trees were harvested. Large tracts of red and white pine were clearcut for lumber and land clearing and not regenerated. Although it is difficult to estimate the amount of red and white pine on the landscape before logging began, studies suggest that a very small percentage of Ontario's original white pine forest remains, and that these forests are nationally and internationally important.

In May 2003, the Ministry of Natural Resources finalized its Old Growth Policy for Ontario's Crown Forests. MNR had posted the policy on the Environmental Registry for public comment just two months before the end of the nine-year deadline imposed by the Environmental Assessment Board in 1994. Many commenters accused MNR of producing an incomplete draft policy at the eleventh hour. Indeed, the final document describes further policy development, guideline revision, spatial analysis tools and inventory work that are still to come.

(The long history of the development of the Old Growth Policy, including a 1997 draft policy posted for public comment, is described in the Supplement to this report, pages 157-168.)

MNR's 2003 Old Growth Policy

The Old Growth Policy builds upon the conservation strategy MNR developed in 1995 for red and white pine, but now covers all tree species. It applies to the area of commercial forestry operations in Ontario's Crown forests and to the parks within that area, but does not cover southern Ontario nor the far north. The Old Growth Policy sets out a two-pronged conservation strategy – to protect some old growth in protected areas and to allow a sustainable harvest in forest management units.

Parks

The objectives for conserving old growth in protected areas are to protect and/or restore representative forest stands of old growth red and white pine within their natural range, and to allow representative amounts of old growth of other species to evolve. New protected areas may be created, and over several years, plans will be prepared for existing and new protected areas.

Forestry

The objectives in Old Growth Policy for conserving old growth in forest management units are:

- to identify old growth
- consider it in preparing each forest management plan
- provide for the future forest needed to maintain "functional old growth ecosystem conditions" for all tree species and forest communities within their natural geographic ranges
- to maintain no less than the 1995 amount of red and white pine (the total amount in hectares), while permitting a sustainable harvest.

Each forest management plan will identify all old growth forest stands of all species, calculating the old growth as a portion (per cent) of the current and future forest condition. Most notably, forest industry teams will have to develop old growth objectives and targets that will protect or restore the distribution and abundance of each forest community toward their natural geographic ranges.

The objectives in the Old Growth Policy for forest management units must be integrated with the forest management planning process and incorporated into forest management plans. The forest management planning process is carried out under the *Crown Forest Sustainability Act (CFSA)*, in accordance with the Forest Management Planning Manual (FMPM). The FMPM, whose requirements are legally binding, provides the direction for preparing forest management plans. Forest industry-led planning teams prepare 10-year forest management plans for each individual forest management unit in the province.

The Old Growth Policy states that "MNR will develop *consistent requirements* for old growth conservation in forest management planning to *ensure minimum standards* and effectiveness in old growth conservation objectives" (italics added). The ministry plans to communicate these requirements through a "Forest Management Planning (FMP) Note" that will provide advice during the forest management planning process. Moreover, MNR said, the FMP Note would be revised as necessary.

Concerns about the Old Growth Policy

During the *EBR* comment period on the Old Growth Policy, both the forest industry and environmental groups expressed concerns about MNR's proposal to develop further forest management requirements outside the Old Growth Policy without further consultation. Forest industry commenters recommended that MNR, in consultation with industry, develop and incorporate clear direction and requirements either into the policy itself or into the Forest Management Planning Manual, in order to ensure consistent application across the province. Instead, MNR finalized the FMP Note in September 2003, without public or industry consultation. In May 2004, environmental groups were not even aware the FMP Note had been developed.

Moreover, the 2003 Old Growth Policy is less legally binding than the 1995 Conservation Strategy for Old Growth Red and White Pine that it replaces. In its 2004 revisions to the Forest Management Planning Manual, MNR removed some existing old growth conservation requirements from the manual. The earlier manual required explicitly that forest management plans contain objectives for red and white pine old growth within the context provided by the 1995 Strategy, which was included in an appendix to the FMPM.

The 2004 FMPM does require plans to develop management objectives and targets regarding old growth, but does not link them to Old Growth Policy, nor is the Old Growth Policy a mandatory component of planning.

MNR received over 400 comments on the proposal for the Old Growth Policy, most of them form letters asking for a clear minimum requirement for companies to retain natural levels of old growth forests. Many commenters recommended that MNR change the objective for conserving old growth to require restoration of red and white pine levels above the 1995 amount, which represent an already severely depleted amount. The forest industry praised the policy because it didn't impose quantitative targets and allowed for flexibility at the local level, but did raise concerns about the potential impacts on wood supply. MNR decided to proceed with requiring old growth targets to be set at the local level by the forest industry teams. The ministry determined that the policy was flexible enough to allow for the impact on wood supply to be assessed during forest management planning.

(The requirement to develop an old growth policy was also a major issue during the review and renewal of the Timber Class EA; see pages 94-99 of this report.)

ECO Comment

The ECO has urged MNR in several annual reports over the past few years to finalize the old growth conservation strategy the ministry was developing. It is unfortunate that MNR did not make much progress on the policy until close to the end of the nine years it was allotted for developing it. One consequence is that the policy was unfinished, in that forest management direction was still being developed when the policy was finalized. There was also inadequate time for meaningful public consultation.

The overall direction in the Old Growth Policy – to identify all old growth, and consider historic conditions in setting objectives and targets in forest management plans – is a good conservation strategy. The ECO would be willing to accept MNR's policy decision to leave the actual setting of objectives and targets to this process, and assume that the policy would be implemented at the local level by the forest industry in good faith – but there is no assurance that the ministry has given adequate direction to industry. The FMP Note does not contain "consistent requirements…to ensure minimum standards and effectiveness," and it is an inappropriate instrument, as discussed below. It will take careful monitoring of individual forest management plans by members of the public to check whether the policy is being implemented.

The Old Growth Policy does not strengthen protection for red and white pine. It doesn't introduce new conservation measures for red and white pine, and its implementation is less legally binding than the existing conservation measures for red and white pine.

The ECO is very concerned that MNR has chosen in its revisions to the Forest Management Planning Manual to remove some of the existing old growth policy direction and has also failed to incorporate the new Old Growth Policy direction into the Manual. Instead MNR has chosen to communicate its old growth direction through a new mechanism – an "FMP Note" – which has no legal authority under forestry legislation and which can be revised at any time without consultation.

The movement of the old growth policy direction from a regulated manual to a "note" illustrates a creeping loss of transparency, and an abdication of the spirit of the *Crown Forest Sustainability Act*. The *CFSA* set out a solid framework for sustainable forest management, accountability and transparency. The Forest Management Planning Manual is approved and revised by regulation, with a regulated process for public consultation. (See pages 149-156 in the supplement to this report.)

The ECO believes that the 2003 "FMP Note" contains new policy and should have been posted on the Registry for public consultation. The Old Growth Policy stated that MNR would develop consistent requirements for old growth conservation. The stakeholders and public who were interested in the Old Growth Policy wanted to see the requirements for forest management planning that were still being developed. But the larger issue is that those requirements should be contained in the Old Growth Policy itself and, where appropriate, should be incorporated into the Forest Management Planning Manual, along with the objectives and direction already set out in the Old Growth Policy.

The ECO also suggests that MNR clarify the unclear language in the Old Growth Policy that the ECO interprets as allowing old growth in parks and protected areas to count toward targets for old growth in areas where forest harvesting is taking place. This should not be used to permit the area of red and white pine in forest harvesting areas to decrease below 1995 levels. MNR should also develop policies, plans and targets to identify and conserve old growth forests in southern Ontario. The pressures on southern Ontario's vanishing woodlands are immense and urgent, as we report in this annual report (see pages 29-34).

MNR recently announced its intention to require all Sustainable Forest Licence holders be certified to an accepted performance standard by 2007. The ECO notes that some forest certification standards for Ontario's white pine and old growth forests have greater sophistication and are more rigorous than the direction in MNR's Old Growth Policy.

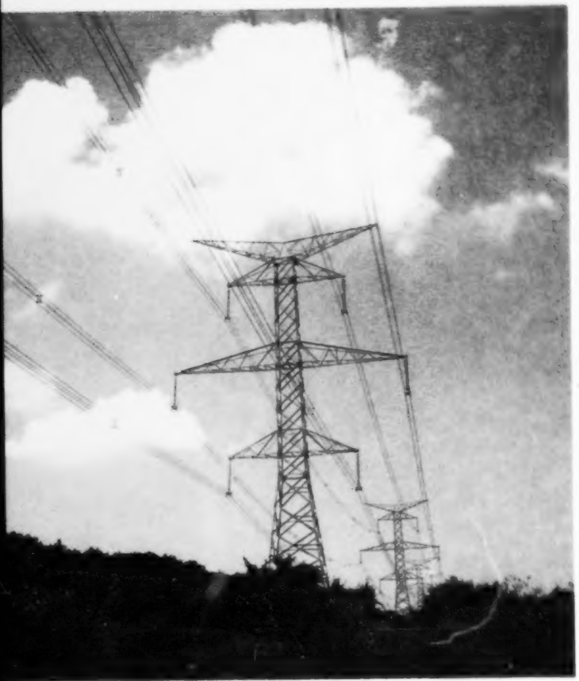
The ECO will continue to monitor MNR's progress on revising and implementing the Old Growth Policy. *(For mininstry comments, see page 201.)*

Recommendation 10

The ECO recommends that MNR revise the Old Growth Policy and Forest Management Planning Manual to incorporate forest management direction and requirements for conserving old growth forests.

The ECO recommends that MNR develop policies, plans and targets for conserving old growth forests in southern Ontario.

New Direction on Electricity Pricing



In December 2003, the Ontario Legislature passed the *Ontario Energy Board Amendment Act (Electricity Pricing), 2003*, or Bill 4. This legislation and its associated regulations created the authority to:

- increase the price of electricity for many Ontarians as of April 1, 2004. The price moved up from 4.3 to 4.7 cents per kilowatt-hour.
- permit the Ontario Energy Board to set the price of electricity for residential and low-volume consumers as of May 1, 2005.
- simplify the process for changing the rate charged for transmitting electricity.
- link the financial returns of local electricity distributing companies with energy conservation performance.

At the time, the Ministry of Energy said its plan "will provide stable and predictable electricity prices for consumers, encourage conservation, create environmental benefits, and attract new sources of supply," and that it will "create a responsible, sustainable approach that will put an end to unaffordable taxpayer subsidies of electricity prices." As a major element of ENG's plan, local distributing companies could spend up to $225 million on electricity conservation initiatives.

The government passed the bill in under a month, which resulted in a very limited opportunity for public consultation. (For more details on Bill 4 and the Ontario Government's electricity plan, see the Supplement to this report, pages 64-70.)

ECO Comment

The ECO welcomes ENG's new direction on electricity pricing, which was given legal effect by Bill 4 and associated regulatory changes. The pricing scheme begins to reflect something closer to the true cost of generating electricity in Ontario. Environmentalists and economists generally agree that the price of electricity for many consumers in Ontario has been too low, and that this pattern has undermined conservation initiatives. The way in which ENG structured the roll-out of the price change is sensible, providing consumers time to adjust to the onset of new rates and possibly adopt electricity conserving devices and behaviour. Measures in Bill 4, when fully implemented, will help to focus attention on the need for conservation, on shifting consumption to off-peak hours and on ways of using electricity more prudently. Such measures are needed to limit the ongoing environmental impacts of electricity generation, which include emissions that lead to smog and acid rain, and the creation of radioactive waste and waterway alteration, as well as land use and visual impacts.

The ECO also welcomes the proposed mechanism by which local distribution companies would carry out conservation initiatives. However, the potential magnitude of this undertaking ($225 million) is significant in terms of current expenditures on conservation. ENG should ensure that there is proper oversight and guidance of these companies so that the funds are spent effectively to reduce electricity consumption.

ENG should have done a better job of consulting the public on this legislation. Bill 4 moved rapidly through the legislature, receiving Royal Assent almost two weeks before the comment period on this proposal was concluded. Although ENG notified the public of this likelihood, the ministry should do a better job of planning its public consultations so that it can better incorporate public input into its decision-making. Comments were received on the proposal, yet ENG did not explain their effect, if any, in its decision notice, noting only that the comments were in support of the proposed amendments. Even if ENG did not have time to consider the comments thoroughly in the development of the bill, the ministry could have committed to considering them in developing the regulations flowing from Bill 4. Moreover, ENG should have provided a better summary of the comments.

The ECO notes that 12 months before this proposal for the bill was posted on the Registry, we recommended to ENG that the "Ministry of Energy...consult with the public and take full advantage of the Environmental Registry in developing key environmental aspects of current and forthcoming energy conservation initiatives. . . ." Since this legislation promotes conservation and demand management initiatives, as ENG noted in its Registry proposal notice, it is unfortunate that the ministry has been reluctant to consult the public in the manner required by Ontario's *Environmental Bill of Rights*. Also, ENG should review the *Ontario Energy Board Amendment Act* for the purposes of prescribing additional sections under the *EBR*, so that all conservation-related regulations are subject to public consultation on the Registry. *(For mininstry comments, see page 202.)*

Stormwater Management Planning and Design

The Ministry of the Environment posted a policy decision on the Stormwater Management Planning and Design Manual (SWMP) on April 1, 2003. This manual is an update of an earlier version, published in June 1994. This comprehensive manual is intended to provide both technical and procedural guidance for the planning, design, and review of stormwater management practices associated with urban development. It's used by the ministry as a reference document in reviewing applications for certificates of approval (Cs of A) for stormwater management systems, and by municipalities, developers and their consultants. However, as the ministry states in the preface to the manual: "It is important that the manual be viewed as a tool for understanding the performance requirements of stormwater management projects and not as a rulebook for all stormwater management solutions."

To reduce its impact on watercourses, stormwater runoff from developed urban areas may be managed in a variety of ways, including "lot level controls," which promote infiltration at the source; conveyance controls, where water is stored or infiltrated during transport; and storage in "end-of-pipe" facilities (usually ponds) prior to discharge to waterways. These measures may be used to address impacts on water quality, hydrologic impacts, in-stream channel erosion concerns, or a combination of these. The SWMP Manual recommends a "treatment train" approach to stormwater management "premised on providing control at the lot level and in conveyance (to the extent feasible) followed by end-of-pipe controls."

Because end-of-pipe storage devices, ponds or artificial wetlands designed to reduce urban runoff impacts are considered treatment systems, they require approval by MOE under the authority of s. 53 of the *Ontario Water Resources Act (OWRA)*. The Cs of A that are issued by MOE are not posted on the Environmental Registry for public comment because they do not set effluent limits, and are therefore considered exempted by the Instrument Classification Regulation 681/94 under the *Environmental Bill of Rights*. There are, however, opportunities for the public to participate at the draft plan approval and site plan approval stages (under the provisions of the *Planning Act*), or under the Municipal Class EA process. If subwatershed plans have been or are being developed by a municipality or Conservation Authority, public participation can also occur at an earlier stage, where stormwater management needs and objectives are developed.

The SWMP Manual is organized into sections covering the environmental planning process, technical design, major stormwater planning concepts and operational and monitoring issues. The Environmental Design section features sizing criteria for various end-of-pipe stormwater management facilities in order to achieve one of three different levels of water quality protection: basic, normal or enhanced. Specifications for enhanced protection level stormwater ponds, wetlands or infiltration devices provide 80 per cent long-term removal of suspended sediment from stormwater, whereas basic design facilities remove only about 60 per cent of sediment. The desired level of protection is specified by the municipality, taking into account objectives of the Ministries of Natural Resources and Environment and the local Conservation Authority. Where a subwatershed plan exists, the desired level of protection may be selected according to water quality or fisheries habitat protection and management needs.

The SWMP Manual is innovative in addressing stormwater flow management for the prevention of in-stream erosion. The emphasis on stormwater flow management historically has been to prevent increases in peak flows to the receiving streams in order to reduce flooding concerns; this is one of the key design elements of stormwater storage devices. However, even when peak flows are adequately controlled, increases in total annual runoff from developed areas can cause significant stream bank and channel erosion. When more than 10 per cent of a watershed is paved or occupied by buildings, hydrologic changes begin to cause stream channels to become unstable and exhibit erosion problems. Concurrently, a loss of fish habitat begins to occur. In the recent past, the engineering solution for problematic stream erosion was to "harden" the channel with rip-rap (rubble or rocks), gabion (wire mesh) baskets or even concrete. But MNR now emphasizes the need to maintain natural channel characteristics. Many municipalities and Conservation Authorities are now implementing stormwater management designs based on erosion susceptibility studies of the affected watershed.

ECO Comment

Limits to effectiveness

Unlike sewage treatment or drinking water treatment facilities, end-of-pipe stormwater detention facilities are "passive" – water flows in, is stored for a period of time, and particulate matter settles. Soluble contaminants such as chloride from road salting and dissolved phosphorus are not effectively removed. Soluble pesticides used by homeowners and lawn care contractors are also frequently detected in stormwater runoff and are in some cases found at levels exceeding guidelines for the protection of aquatic life. In some cases, more aggressive treatment of stormwater may be specified by a municipality, provincial agency, or Conservation Authority. For example, where development is extensive and there are adjacent recreational water uses, additional treatment to remove bacterial pathogens more effectively, such as ultraviolet treatment, may be required.

The consensus of scientific evidence is that when the area of paved or roofed-over surfaces rises above 10 per cent of the area of a watershed, fisheries, streambed shape, groundwater recharge, minimum baseflow and other natural and water resource attributes of the watershed begin to deteriorate. Provincial Water Quality Objectives are likely to be exceeded above this development level as well. When these patterns of development occur, the ecological integrity of watersheds may be threatened, or even put at or beyond the brink of irreversible degradation. Such areas could conceivably reach a point where allowing any further stormwater discharges would begin to reach the point that water quality objectives would not be met in the receiving stream.

Given the threat from this cumulative impact, the ECO is concerned that the SWMP Manual does not exercise a precautionary approach in the selection of end-of-pipe stormwater facilities. It provides design specifications for a selection of measures giving three levels of water quality protection: basic, normal, and enhanced. The Manual states: "Basic protection would only be acceptable where the receiving aquatic habitat is demonstrated to be insensitive to stormwater impacts and has little potential for immediate or long-term rehabilitation." This appears to be a blanket decision to "write off" some watercourses entirely, and a contradiction of MOE's Policy on Surface Water Management. This Policy states that "... water quality which presently does not meet the Provincial Water Quality Objectives shall not be degraded further and all practical measures shall be taken to upgrade the water quality to the Objectives." It could be argued that "all practical measures" could potentially include the enhanced level of stormwater facilities design; their selection would support the principle of no further degradation.

Limits to growth

The Oak Ridges Moraine Conservation Plan is very forward-looking in terms of recognizing the potential for cumulative impacts on water resources resulting from urban development in this protected area. (See the 2001/2002 ECO annual report, pages 72-79.) In order to protect hydrologic and other related features of the Oak Ridges Moraine, the plan specifies that: "Except with respect to land in Settlement Areas, all development and site alteration with respect to land in a subwatershed are prohibited if they would cause the total percentage of the area of the subwatershed that has impervious surfaces to exceed (a) 10 per cent; or (b) any lower percentage specified in the applicable watershed plan." Provincial policy on urban development that takes stormwater impacts into account could use the Oak Ridges Moraine Conservation Plan as a model.

Recently, the government proposed the *Greenbelt Protection Act, 2003*, and while the legislature considers it, imposed a moratorium to "temporarily prevent new urban uses outside existing urban boundaries on rural and agricultural lands within key portions of the study area" (i.e., Toronto, Durham, York, Peel, Halton, Hamilton, the Oak Ridges Moraine, the Niagara tender fruit lands and the Niagara Escarpment). Concurrently, amendments to the *Planning Act* have been tabled in the legislature and a white paper on Watershed-based Source Protection has been released for public review.

The proposed legislative changes are hopeful signs that most of the rapidly developing areas in southern Ontario will receive a higher level of watershed protection and improved planning. The ECO believes that watershed and subwatershed planning in advance of urban development needs to be given a more formal role in the future through provincial policy setting. This environmental approach has already proven its major value to municipal land use planning when it has been implemented voluntarily under the guidance of provincial agencies, municipalities and Conservation Authorities. Presently, the only formal policy for watershed or subwatershed planning is in the Oak Ridges Moraine, where the Conservation Plan states: "Every upper-tier municipality and single-tier municipality shall, on or before April 22, 2003, begin preparing a watershed plan...for every watershed whose streams originate within the municipality's area of jurisdiction." For all other areas of the province there is no onus upon municipalities to do this level of environmental planning, although Conservation Authorities have been active in promoting subwatershed planning with their member municipalities.

Limits to applicability

In many areas in Ontario, residential and industrial developments have been built so that the stormwater flows into existing drains constructed under the provisions of the *Drainage Act*. The applicability of the *OWRA* to the discharge of municipal storm drainage works to these drains is uncertain. Stormwater management and design of stormwater facilities would not necessarily be required in this case to meet the level of design recommended in the SWMP Manual. Where developments are approved on such existing municipal/agricultural drainage systems, there would seem to be no onus upon the municipality or the developers to design stormwater controls according to the SWMP guidelines, or to seek approval under the *OWRA* for stormwater management facilities.

The ECO is currently aware of at least two situations in Ontario where this has recently occurred. An application for investigation under the *EBR* has been submitted to the ECO in one case, in which a lack of adequate stormwater controls has led to erosion, flooding and pollution problems. The ECO is concerned about the threat that this apparent loophole in regulations poses to watercourses in Ontario and plans to investigate further. *(For mininstry comments, see pages 202-203.)*

The Revised Water Wells Regulation

In April 2003, the Ministry of the Environment finalized its proposal to amend the Wells Regulation (Regulation 903, R.R.O. 1990) under the *Ontario Water Resources Act (OWRA)*. The Wells Regulation governs how wells are constructed, maintained and abandoned by setting minimum standards for all types of water wells – private, communal, municipal, industrial and commercial wells. Regulation 903 also sets licensing requirements for well contractors and technicians involved in drilling, boring, digging and pump installation. Many sections of Regulation 903 were amended in this decision, e.g., sections dealing with well construction, technician licensing, retesting, disinfection, annular space, sealants and other aspects of well use. MOE also introduced new provisions requiring the use of well identification tags, as well as dealing with shallow works and the continuing education of drillers. MOE indicated that key parts of the revised regulation would go into effect in August 2003.

The ministry noted that these amendments were needed as part of a provincial groundwater strategy announced after the contaminated water tragedy at Walkerton, Ontario, in 2000. Mr. Justice O'Connor, who led the Walkerton Commission of Inquiry, suggested that MOE should review and update the Wells Regulation under the *Ontario Water Resources Act* "to ensure that it requires best construction practices." The ministry acknowledges that wells can act as pathways for contaminants to enter groundwater if improperly located, constructed, maintained or abandoned.

The April 2003 revisions require drillers, technical specialists and others to apply new requirements for well construction, reporting and abandonment. Specifically, some of the new or amended practices resulting from O. Reg. 128/03 include:

- a well tagging system that places an identification marker on water wells so they may be easily identified at their location.
- a new standard for disinfection, i.e., a lower concentration of chlorine, which was intended to improve the disinfection capability of chlorine by minimizing the alteration of water chemistry.
- changes to the way wells are sealed, casings are installed and wells abandoned.

MOE's amendments were intended to improve the health and safety of drinking water supplies from wells and to protect groundwater resources across the province. In practice, much of the improvement will be contingent on the effective implementation of the new standards by well drillers. This, in turn, will partly be contingent on MOE's efforts to ensure that the new standards are implemented through oversight, monitoring and inspection.

The EBR *process and public consultation*

In total, 67 commenters provided approximately 250 pages of comments when MOE posted its proposal notice for a 60-day comment period in April 2002. Many of the submissions were extremely detailed, including comparisons to practices in other jurisdictions (e.g., Michigan) and connections to other Ontario legislation, i.e. the *Building Code Act*. In many areas covered by this regulation – for instance, well construction, outreach, and tag management – commenters suggested ways in which the ministry could have gone further. For the most part, these suggestions were not incorporated into the revised regulation. Overall, MOE could have done a better job of explaining the effects of this wide range of comments on the decision, as well as explaining why certain comments were not factored into the final decision. (For more on this, see the Supplement to this report, pages 83-88.)

Within a few months of this MOE decision being posted, a lengthy, complex application was filed with the ECO for a review of the adequacy and implementation of this amended regulation. The application raised concerns about well water safety because of the amendments to Regulation 903 or their implementation in August 2003. In particular the applicants believed that the revised regulation created confusion, failed to ensure disinfection, and could be difficult to enforce. The ministry denied the review and defended the safety and technical merits of the revised regulation (see pages 223-233 in the Supplement). However, in July 2004 the minister asked the Advisory Council on Drinking-water Quality and Testing Standards, created under the *Safe Drinking Water Act*, to review the chlorination and disinfection issues raised by the applicants and report back in the fall of 2004.

ECO Comment

On the whole, water wells in Ontario have proved to be reliable sources of drinking water for millions of Ontarians. MOE, drillers, municipalities, well owners and others all have a role to play ensuring that this valuable resource is protected. Some of the measures contained in Regulation 903, like the well identification tags and abandonment procedures, represent new or improved practices that should help to safeguard Ontario's groundwater if properly implemented and enforced.

A number of commenters sought flexibility and certain exemptions to accommodate the widely varying purposes for drilling wells – everything from short term monitoring and testing needs to a longer lasting residential water supply for drinking purposes. In some instances, MOE demonstrated a willingness to accommodate these comments by balancing prescriptive requirements with some measure of discretion and flexibility for those persons regulated by or applying the regulation. Partly as a result of this, plain language guidance seems to be required to explain many elements of the amended regulation.

The well regulation should require best construction practices, as recommended by Mr. Justice O'Connor. However, concerns have been raised (for example, through an *EBR* application, see pages 223-233) that the new well regulation, as currently drafted, does not meet those intentions, especially with regard to private domestic wells. For instance, there are concerns that the regulation does not require well constructors to verify, through water testing, that new wells have indeed been disinfected. Nor is there a requirement that well contractors disinfect private wells after carrying out repairs. As well, Justice O'Connor noted the importance of applying the existing licensing system thoroughly to the well construction and maintenance industry. But the new regulation, on its own, will not be able to resolve the issue of unlicensed practitioners carrying out work on private wells – a practice which apparently remains widespread in some areas.

Concerns have also been raised that many technical details stipulated by the regulation (rules on shallow test holes, for example) are not workable in practice. The ECO has also heard concerns that some environmentally important requirements (such as rules on well tags and rules for separation distances between septic systems and wells) have been worded in such a way that they are not enforceable. It appears that, to make the new regulation a truly effective tool for drinking water protection, the ministry should correct a number of technical deficiencies, clarify language to reflect on-the-ground practices, and think through the various enforcement challenges that need resolution in order to meet the intentions of Mr. Justice O'Connor.

Several municipalities apprised MOE of the difficulties they have in ensuring that proper well construction, development, and testing are carried out by contractors in their jurisdictions. The municipalities indicated that MOE either needs to increase its inspection efforts or the Ontario government should provide municipalities with enhanced powers to ensure appropriate well standards are met. These are substantive matters that MOE did not address through this decision. However, MOE does have pilot projects under way in Eastern Ontario that involve delegation of certain well inspection duties to the local municipality.

The ECO will continue to review matters related to groundwater and well safety in the 2004/2005 reporting period. *(For mininstry comments, see page 203.)*

Recommendation 11

The ECO recommends that MOE ensure that key provisions of the Wells Regulation are clear and enforceable, and that the ministry provide a plain language guide to the regulation for well installers and other practitioners.

PART 5:

Applications for Reviews and Investigations

Members of the public can use the application processes provided by the *Environmental Bill of Rights* to urge ministry action they believe is needed to protect the environment. Under the *EBR*, Ontario residents can ask government ministries to review an existing policy, law, regulation or instrument (such as a certificate of approval or permit) if they feel that the environment is not being protected. Residents can also request ministries to review the need for a new law, regulation or policy. Such requests are called applications for review.

Ontario residents can also ask ministries to investigate alleged contraventions of specific environmental laws, regulations and instruments. These are called applications for investigation.

The ECO's role in applications

Applications for review or investigation are first submitted to the Environmental Commissioner of Ontario, where they are reviewed for completeness. Once ECO staff have decided that a particular application meets the requirements of the *EBR*, the ECO forwards it to the appropriate ministry or ministries. The ministries then decide whether they will conduct the requested review or investigation or whether they will deny it. The ECO reviews and reports on the handling and disposition of applications by ministries.

Five ministries are required to respond to both applications for review and applications for investigation. They are:

- Environment
- Energy
- Natural Resources
- Northern Development and Mines
- Consumer and Business Services (Technical Standards and Safety Authority)

Two ministries are required to respond to applications for review only:

- Agriculture and Food
- Municipal Affairs and Housing

In the 2003/2004 reporting year, the ECO received 17 applications for review and 10 applications for investigation. The number of applications declined by about 25 per cent from last year's total, but is higher than for the 2001/2002 reporting year. Individual applications for review and investigation may be forwarded to more than one ministry if the subject matter is relevant to multiple ministries, or if the applicants allege that Acts, regulations or instruments administered by multiple ministries have been contravened.

Ministries occasionally deny applications for investigation on the grounds that studies or investigations are already in progress. In these cases, the ECO recommends that the ministry carrying out the investigation subsequently provide any results or reports from the non-*EBR* investigation to the *EBR* applicants and to the ECO.

The following tables provide a breakdown of the disposition of applications handled by the ministries during the year. The total number of reviews and investigations completed or denied during the year also included those applications that were listed as "in progress" in the previous fiscal year.

Reviews

Ministry	Total Forwarded In Year	Reviews Denied	Reviews Completed	Reviews in Progress as of March 31, 2004
MOE	10	7	3	7
MNR	5	3	–	2
MMAH	2	1	–	1
OMAF	–	1	–	–

Investigations

Ministry	Total Forwarded In Year	Investigations Denied	Investigations Completed	Investigations in Progress as of March 31, 2004
MOE	9	8	6	1
MNR	1	4	1	–

As in previous years, the majority of applications for review and investigation were denied. In many cases, the ECO did not agree with the ministries' rationales for denying these applications. Detailed ECO reviews of the Applications for Review and Investigation are found in Section 5 of the Supplement to this annual report.

Ecosystem Impacts of Mercury

Mercury is a naturally occurring metal with unique properties that have been employed – and marveled at – since ancient times. At room temperature, it is an extremely dense liquid that also readily vaporizes. Because it combines easily with other metals to form amalgams, mercury has long been used in dentistry and to separate gold from other minerals. Because of its physical properties, it has been a preferred material in thermometers and barometers. Since mercury is an element, it does not degrade over time, nor can it be destroyed.

As a pollutant, mercury has particularly insidious characteristics. It is released from a very wide range of industrial sources (often as an inadvertent byproduct); in gaseous form, it has the capacity to circulate globally through ecosystems; and it can bioaccumulate to toxic concentrations in the top predatory species of food chains. Thus, fish-eating birds and mammals have a higher dietary exposure to mercury than to any other known component of aquatic ecosystems. Mercury toxicity for fish, birds and mammals can lead to reduced reproductive success, impaired growth and development, behavioral abnormalities, and death.

In northeastern North America, the wildlife species considered at greatest risk of mercury poisoning include common loons, bald eagles, osprey, mink and otter. Researchers have documented elevated mercury levels in common loons in the Maritime provinces and in New England, in bald eagles in Maine, and in osprey in northern Quebec.

Since mercury occurs naturally and vaporizes readily, there has always been a certain amount of deposition from the atmosphere. But the deposition of mercury as a pollutant has increased substantially due to human activities such as the mining of mercury and the burning of fossil fuels, which releases previously bound mercury. Historic deposition rates can be measured in bog and lake sediment cores. Comparative studies show that average concentrations in sediments have increased two to three times since the onset of the industrial revolution.

Movement of mercury through ecosystems

Mercury has a complex global cycle, since it can be transported long-range as vapour, transformed to methyl and dimethyl forms in sediments and water, and also bioaccumulate in living organisms. Thousands of tonnes of mercury vapour are emitted each year into the atmosphere worldwide, from both natural and human processes. For example, it is estimated that global atmospheric emissions of mercury from major anthropogenic sources are over 2,200 metric tonnes a year. Mercury vapour can drift for a year or more, traveling great distances across the globe. Thus, mercury can be deposited with rain, snow and dust to regions without local mercury emission sources. Once deposited, mercury may vapourize again and drift back up into the atmosphere in a repeated cycle of deposition and evaporation. This cycle, called the "grasshopper effect," tends to concentrate certain pollutants in the cold polar regions of the globe.

Mercury concentrations in the open waters of lakes, rivers and oceans are usually low, ranging from less than 1 to 20 parts per trillion. But the sediments of those waters have much higher levels of mercury, since mercury compounds are attracted to particles and decaying organic matter. In Canadian lakes and streams, mercury concentrations in sediments tend to be about a million times higher than in water, ranging from 0.005 to 99 parts per million (ppm). Certain kinds of bacteria in the top layers of lake sediments convert inorganic mercury to methylmercury, which is a more toxic and biologically active form. This process is especially promoted in shallow acidic waters, in sediments rich in organic matter, and at warm temperatures. Since these conditions are often created in reservoirs formed after rivers are dammed, fish in reservoirs have relatively high concentrations of methylmercury.

The extent to which wildlife are exposed to mercury contamination depends on their place in the foodchain, their feeding habits and their size. Generally, wildlife that eat aquatic organisms are more exposed than consumers of terrestrial food chains. Top predators are most at risk, and within any given population, the largest individuals are likely to have accumulated the largest body burdens of mercury.

How high are mercury levels in wildlife?

It is clear that mercury levels in fish increase as fish get longer, heavier and older. A 1996 survey of Ontario sport fish by the Ministry of the Environment found that about 80 per cent of the population of large walleye in Ontario contained above 0.5 ppm mercury, and 10 per cent contained above 1.5 ppm. These concentrations are high enough to trigger Health Canada consumption restrictions for children and for women of childbearing age.

Some researchers have estimated that fish containing more than 0.4 ppm mercury may cause reproductive problems in loons that eat them. Fish containing these levels of mercury, and that are small enough to be prey for loons, can be found in up to 30 per cent of Ontario lakes. Mercury levels in the muscle of common loons of northwest Ontario have been found, under normal conditions, to average 1.2 ppm, and in lakes near a mercury pollution source, up to 4.6 ppm. In a separate survey of chemical residues in Canadian waterfowl conducted by the Canadian Wildlife Service, muscle tissue of loons and mergansers was found to have the highest levels of mercury among the species studied, with levels in the range of 1.5 – 1.9 ppm. Loons in Kejimkujik National Park, Nova Scotia, have the highest level of blood mercury observed in this species in North America.

Essentially all of the mercury in large fish and in wildlife comes from their food. Mercury levels in wildlife can vary considerably, even among individuals of the same population of a species sharing similar habitats. Depending on the types of prey available, wildlife may develop higher or lower body burdens of mercury.

Are wildlife showing effects?

Though the levels of mercury observed in wildlife are rarely high enough to result in acute toxicity, they are within ranges where adverse effects are possible. Since chronic mercury toxicity shows up as neurological and brain damage, chronic symptoms can include subtle abnormal behaviour, impaired hunting ability, eating disorders, loss of balance, lack of coordination and paralysis of the legs. Such symptoms can be very hard to monitor directly in wild populations, since individuals suffering such symptoms tend to disappear quickly due to starvation and predation. Researchers may instead evaluate surrogate parameters, such as the ability of birds to raise chicks, or the overall reproductive success of a population.

> ***.... chronic symptoms can include subtle abnormal behaviour, impaired hunting ability, eating disorders, loss of balance, lack of coordination and paralysis of the legs .... individuals suffering such symptoms tend to disappear quickly due to starvation and predation. ...***

Wildlife species vary considerably in their susceptibility to mercury poisoning. Mammals and birds tend to be more sensitive to mercury than fish. Fish contaminated with a certain level of mercury may not have noticeable problems, but the mink that eat those fish may develop health problems over their lifetime. In mink, methylmercury has been shown to be lethal at a dietary level of 5 ppm, and to cause sublethal effects at 1.8 ppm. In one study, a diet containing 1.0 ppm methylmercury, in combination with cold stress, was lethal to mink after two to three months' treatment. In a Quebec study, 0.9 ppm mercury was lethal to half of a treated group of mink after about three months. A study of river otter found they died after about nine months at a controlled dietary exposure level of 2 ppm.

Measuring mercury's effects

There are limitations in the ability of science to determine the ecological effects of mercury, particularly where relatively low-level exposures and chronic effects are concerned. While controlled laboratory experiments can be carried out on species such as mallard ducks, susceptible species such as loons cannot be kept for prolonged periods in labs, and it can be difficult to extrapolate lab results to them. Furthermore, wildlife may be exposed not just to a single contaminant such as mercury, but to additional multiple stresses such as lead toxicity, habitat disturbance and habitat loss. This makes it even more difficult for researchers to tease out the impacts caused by mercury. Nevertheless, researchers have found a clear exposure-response relationship between blood mercury concentrations in adult loons and their ability to nest and raise young. As well, high blood mercury levels in loon chicks appear to affect their behaviour adversely. A field study of common loons in Ontario found that all chicks died before fledging when fish containing between 0.3 and 0.4 ppm mercury were consumed. When fish contained higher levels of mercury, averaging 0.9 ppm, the adult loons became emaciated and also failed to raise young.

In Ontario, neither the Ministry of the Environment nor the Ministry of Natural Resources is monitoring mercury concentrations or impacts in vulnerable top predators such as loons or otters. MOE is, however, monitoring mercury levels in young-of-the-year yellow perch, which are widespread in headwaters and relatively easy to collect. Young-of-the-year reflect a single year's exposure to mercury, and thus long-term monitoring is needed to identify any long-term trends. Collection of these fish at the needed times and sampling sites has sometimes been limited by budgets, but the project is ongoing.

Environment Canada has developed mercury tissue residue guidelines (TRGs) for a number of fish-eating mammals and birds, based on the observed sensitivity of each species. TRGs are estimated levels of mercury that should be safe food for wildlife. Prey-sized fish containing levels of mercury higher than the TRG indicate that mercury might be an environmental problem for the fish-eating predator species. Environment Canada surveyed a database of mercury concentrations in fish taken from over 3,000 locations across Canada, and found that mercury is a potential problem throughout Canada. For example, osprey can access prey-sized fish with unsafe levels of mercury in Saskatchewan, Manitoba, Ontario, Quebec and Newfoundland.

Practical implications

Our observations of wildlife so far present an early warning that ecosystem impacts of mercury may be subtle and pervasive, and that future ecosystem impacts from mercury contamination may increase. They also underscore the wisdom of taking aggressive steps to cut mercury emissions to the environment.

Humans are the only species with the ability to avoid food types known to contain elevated levels of mercury. In fact, advisories warning the public to avoid certain kinds of mercury-contaminated fish are already widespread in northeastern North America. For example, the Ontario Ministry of the Environment monitors contaminants in sport fish at over 1,500 locations at Ontario's smaller inland lakes. At over 40 per cent of those locations, fish consumption restrictions apply, and in over 98 per cent of the cases, the restrictions are due to mercury contamination.

.... Our observations of wildlife so far present an early warning that ecosystem impacts of mercury may be subtle and pervasive, and that future ecosystem impacts from mercury contamination may increase. ...

The U.S. Centers for Disease Control reported in 2001 that approximately 10 per cent of U.S. women of childbearing age have elevated mercury levels (within one-tenth of potentially hazardous levels) in their blood, primarily from eating fish. The U.S. Food and Drug Administration issued a consumer advisory at the same time, warning that women of childbearing age should not eat fish with high methylmercury levels, such as swordfish, shark, king mackerel or tilefish. The elevated mercury levels in fish have become a difficult issue for public health officials, since fish has important nutritional value, and is also a key component of the diet of several cultural groups, such as First Nations.

In contrast to humans, fish-eating birds and mammals have no recourse to alternative food sources, and no way of recognizing mercury-contaminated food. They are embedded in their local ecosystems, and when these ecosystems become polluted, they suffer the full consequences.

Effectiveness of emission controls

Mercury contamination can be addressed and gradually reversed, with firm regulatory action. Ontario's experience shows that control of local mercury sources can result in less contaminated wildlife over time. For example, in the early 1970s, controls were placed on major industrial discharges of mercury to certain Ontario waterways. MOE reports that over the next 30 years, mercury concentrations in large lake trout from Lake Superior steadily declined, from 0.5 ppm to approximately 0.2 ppm today.

This example shows that it would be worthwhile for Ontario to focus in a concerted way on reducing mercury emissions from Ontario sources, such as coal-fired power plants and sewage treatment plants. The following article, pages 122-126, describes an application submitted under the *Environmental Bill of Rights* regarding mercury emissions from Ontario's coal-fired power plants. These facilities do not operate under mercury emission caps, despite being major sources of the pollutant. The ECO's past annual reports have described the limited efforts Ontario has made thus far to manage mercury emissions from base metal smelting, dental amalgams and fluorescent lamps through the adoption of Canada-Wide Standards (CWSs). For example, although base metal smelting is a major emission source, the CWSs do not come into effect for existing smelters until the year 2008, at which time the smelters are expected to make a "determined effort" to achieve the new emission guideline. The ECO believes there is a need for a much more vigorous approach to controlling Ontario mercury emission sources.

At a minimum, the ECO sees a need for careful monitoring and clear public reporting of mercury's impacts on Ontario ecosystems, including impacts on higher trophic levels, vulnerable species and sensitive ecosystem functions. An accurate, comprehensive inventory – or failing that, MOE's best available estimate – of mercury loadings to Ontario's environment should also become a regular component of the province's annual air quality reports. Finally, MOE should identify and consult the public on further mercury reduction options, above and beyond the CWSs.

Further Reading

Mercury: Fishing for Answers; Environment Canada; Water Policy and Coordination Directorate; 2003

Mercury in the Environment: A Primer; Pollution Probe; 2003

Mierle, G. 1997a. Mercury in Ontario's environment. SRQ Technical Bulletin No. AqSS-6, September. Aquatic Science Section, Standard Development Branch, Ontario Ministry of the Environment. 3 pp.

Mierle, G. 1997b. Mercury in Ontario's environment: Who is at risk? SRQ Technical Bulletin No. AqSS-7, September. Aquatic Science Section, Standard Development Branch, Ontario Ministry of the Environment. 4 pp.

(For mininstry comments, see page 203.)

Recommendation 12

The ECO recommends that MOE establish a comprehensive program to develop an understanding of the pathways, movement and fate of mercury in Ontario ecosystems.

OPG Mercury Emissions: Is There a Contravention of Law?

In August 2002, the ECO forwarded an application to the Ministry of the Environment that alleged that Ontario Power Generation's (OPG) five coal-fired plants are responsible for the deposition of mercury to Ontario's waterbodies. The application, submitted by the Sierra Club, alleged that OPG is in contravention of s. 30(1) of the *Ontario Water Resources Act (OWRA)*, which prohibits the discharge of any material into Ontario's waters that "may impair" water quality. The application also alleged that OPG contravenes s. 36(3) of the federal *Fisheries Act*, which prohibits the deposit of a "deleterious" substance into Canadian waters frequented by fish.

The Sierra Club, represented by the Sierra Legal Defence Fund (SLDF), requested an investigation to determine: Is OPG emitting mercury? Is mercury a material that "may impair" under the *OWRA* or a "deleterious" substance under the federal *Fisheries Act*? Is any mercury from OPG plants reaching Ontario waters or Canadian fisheries waters?

The applicants cited reports revealing that since 1999, OPG's five plants have emitted more than 2,000 kg of mercury into Ontario's air. They provided evidence of the ecological and human health impacts of mercury, noting that MOE itself has described mercury as "a potent-nerve toxin that builds up in the foodchain." They cited a 2001 MOE report which acknowledged that even low levels of mercury exposure can adversely impact the fetus and young child and which reported on the notable impacts on sport fishing, aboriginal people and loon and otter populations in Ontario and Canada. The applicants also discussed the movement of mercury in ecosystems and its bioaccumulation up the aquatic foodchain. (See also pages 116-122 for more information.)

The applicants argued that there is strong evidence that some portion of OPG's mercury emissions enter Ontario waters and Canadian fishery waters. They acknowledged that it may not be possible to quantify the amount of mercury released by OPG which makes its way into these waters, but argued that it is not necessary to do so. Following a detailed analysis of legal issues and relevant case law, the applicants argued that mercury is an "inherently toxic substance" and that "therefore the offence is complete when any amount of OPG's emissions of mercury enter our waters."

MOE did not conduct an investigation under the *Fisheries Act*, saying that "the investigation and enforcement of the *FA* is the responsibility of Environment Canada." The ministry did conduct "an investigation" under the *OWRA*, amounting to a paper review of the evidence, but concluded "there is not, at this time, a reasonable prospect of a successful prosecution of OPG or any of its officers or directors with respect to the mercury emissions from the coal-fired plants, nor would it now be in the public interest to commence such a prosecution under the *OWRA*."

In its report on the investigation, MOE acknowledged that OPG mercury emissions to air are occurring, recognized the toxicity of mercury and agreed that the deposition of mercury from OPG plants to Ontario waters is occurring. However, the ministry did not agree that mercury is an inherently toxic substance, suggesting that it would be necessary to quantify OPG's mercury deposition to the waters in order to prosecute successfully under the *OWRA*.

MOE argued that it is simply not feasible to characterize mercury as a substance requiring a "zero tolerance" level at this time, since mercury occurs naturally in the environment and is emitted by a number of industries in Canada and the U.S. The ministry pointed out that its interpretation is consistent with other approaches to managing mercury, such as the commitment of the Canadian Council of Ministers of the Environment (CCME) to develop a mercury standard for coal-fired plants. MOE noted that "the *FA*, on the other hand, is more open to the cumulative effect argument because of its focus on 'deleterious substances' as being those which contribute to the 'process of degradation' of 'water frequented by fish.'"

MOE asserted that it is beyond the capacity of investigators to quantify OPG's mercury deposition to Ontario waters "directly and convincingly." The ministry described a number of challenges to establishing linkages, such as the fact that the plants emit several forms of mercury that behave differently in the environment, and indicated that chemical tracking methodologies currently available are inadequate.

In an appendix to its report, MOE described a variety of relevant initiatives and actions, such as the former government's commitment to phase out Ontario's coal plants no later than 2015; the ministry's plan to develop or update air guidelines/standards for priority toxic contaminants, including mercury; and the CCME's efforts to develop national emissions standards for reducing mercury emissions from coal plants.

In a letter to the Minister of the Environment of January 2004, SLDF asserted that it believes that MOE is wrong in its opinion that mercury is not inherently toxic. However, SLDF added, "if the MOE is right, its determination simply underlines a weakness in the *OWRA* as it relates to contaminants in general." The standard of having to prove that harmful emissions from particular sources cause an impact in a receiving waterbody is too high, SLDF stated, because, as MOE itself argued, situations can be complex and the methods that would permit this analysis are currently inadequate. SLDF's letter encouraged the minister to amend s.30(1) of the *OWRA* to clarify "that the Crown need only prove that the material itself may impair, as in the case of s.36(3) of the *Fisheries Act* (i.e., absent any consideration of the discharge or the receiving waterbody)." SLDF noted that the ECO had made the same recommendation in our 2001/2002 annual report. (See pages 55-63 of our 2001/2002 report).

ECO Comment

The ECO agrees with the applicants that certain aspects of this MOE investigation were flawed. For example, the ministry's belief that mercury is not an inherently toxic substance does seem questionable, given the well-documented environmental effects of mercury. MOE's report on the investigation could have delved further into a discussion on *why* it believes that it is necessary to quantify mercury deposits to Ontario waters to prosecute successfully under the Act, and included more than a passing reference to the relevant case law. The applicants allotted several pages to a discussion of relevant case law in an effort to make the case to the contrary. Moreover, MOE's position on the need to quantify deposits to water influenced its decision not to pursue charges.

The ECO does acknowledge, however, that the application of the *OWRA* in cases involving pollutants released to the air that are subsequently deposited to water is unprecedented. The ECO also recognizes that there are scientific complexities involved in directly linking mercury air emissions to deposits in bodies of water.

As noted above, MOE's investigation under the *OWRA* appears to have consisted of a paper review of the evidence provided by the applicants. The ECO believes that MOE should have provided the applicants with any additional information in its possession on aspects of the link between mercury emissions from Ontario's coal plants and impacts on Ontario waters. The ministry could have taken – and reported on – additional steps to advance understanding of the link, particularly given that the government did not intend to phase out Ontario's coal plants until 2015 at the time the investigation was undertaken. The ECO is also concerned that it does not appear that MOE considered the use of other compliance tools available under the *OWRA*.

Reducing Mercury Emissions from Coal Plants

In June 2003, the CCME announced its commitment "to develop a Canada-wide Standard by 2005 to reduce mercury emissions from the coal-fired electric power generation sector by 2010, to explore the national capture of mercury from coal burned in the range of 60-90 [per cent], and to align with U.S. standards for mercury." Commercially available technology used to capture other pollutants can reduce mercury emissions by 60 to 90 per cent, depending on the coal type and the conditions. While mercury-specific emissions reduction technology is not yet widely available, OPG has indicated that demonstration projects using the technology have shown that "considerable mercury capture could be achieved, in the 70 to 90 per cent range" and that "much of the information is readily applicable to OPG stations."

The U.S. Environmental Protection Agency is mandated to complete a new mercury rule for the electric power sector by March 2005. At present, there is considerable debate in the U.S. around the timelines for and stringency of the standard. When the CCME issued its notice, the U.S. EPA was on pace to issue a rule to regulate mercury using maximum achievable control technologies. However, in December 2003 the agency instead proposed a relaxed standard that would require the industry to reduce mercury emissions only 29 per cent by 2007 and 70 per cent by 2018.

As the Ministry of the Environment also pointed out, the previous Ontario government had committed to phase out coal plants by 2015. The current government campaigned on a platform of phasing out the plants by 2007 and has taken some steps towards this promise. However, there may be electricity supply constraints that will frustrate Ontario's commitment to meeting the 2007 phase-out.

In August 2003, 49 Canadian and U.S. health and environmental non-governmental organizations filed a citizen submission with the Commission on Environmental Cooperation (CEC), alleging that Canada is failing to effectively enforce s.36(3) of the *Fisheries Act* and sections of the *Canadian Environmental Protection Act* with respect to three of OPG's plants. The submission raised concerns about mercury, nitrogen oxide and sulphur dioxide emissions. The federal government responded in November 2003, stating that mercury emissions are being addressed through the CCME mercury standard development process. It also indicated that "there is insufficient evidence of a causal link between mercury emissions" originating from the plants with the mercury found in fish-bearing waters at this time, but that it has undertaken an inspection program to study the link.

The appendix to the ministry's report on the investigation did, however, provide the applicants with useful information on related activities and initiatives under way. The ECO encourages the ministry to provide applicants with similar appendices in future reports.

While some of the activities under way at provincial, national and international levels may lead to reductions in mercury emissions from Ontario's coal plants, it is not clear at this time when and the extent to which this will happen.

The ECO believes that MOE needs to take firm action on mercury emissions from coal-fired power plants, especially if the Ontario government decides to extend the lifespan of existing facilities beyond 2007. The ecological and human health impacts of mercury are well-documented, and coal plants are known to be a significant source of emissions. *(For mininstry comments, see pages 203-204.)*

Open Netcage Aquaculture in Georgian Bay

Background

Two applicants requested a review under the *EBR* of the policies and regulations for open netcage aquaculture in Georgian Bay public waters, supporting their application with two substantial reports. Specific concerns about the policies and regulations for water quality and environmental monitoring of open netcage aquaculture, discussed below, were forwarded to the Ministry of the Environment.

The applicants' request for a review of the *Nutrient Management Act*, because of concerns about nutrients from fish waste, was forwarded to the Ministry of Agriculture and Food, and their request for a review of the policies and regulations regarding escapement, enforcement and fines was forwarded to the Ministry of Natural Resources. (A full report on the responses of MNR and OMAF to this application can be found on pages 181-182 and 248-250 of the Supplement to this report.)

The applicants noted that the eastern shoreline of Georgian Bay is used primarily for recreational activities, as a source of drinking water, and as a receiver of domestic sewage. However, a decline in walleye and bass yields, changes in water clarity, the appearance of zebra mussels and periodic high concentrations of *E. coli* have raised questions regarding the consequences of increased development activity, fish farming and dredging activity in the area.

The applicants noted that open netcage aquaculture operations discharge fish waste and uneaten food directly into open water, which raises phosphorus levels. Phosphorus is a "key limiting nutrient" that, when elevated, can change an ecosystem in dramatic ways "by increasing primary production" – that is, increasing plant growth. Although studies indicate that total phosphorus (TP) for open Georgian Bay water is 3 – 5 µg/L, MOE uses 10 µg/L as the level at which aquaculture operations are required to take corrective action. The applicants believe that MOE chose this level because of a "lack of more precise analytical procedures," in spite of conducting a study on open Georgian Bay water in which lower concentrations of TP were measured. The applicants point out that the Provincial Water Quality Objectives state that if TP is lower than 10 µg/L, it should be maintained at that lower level. MOE ignored this policy when the ministry developed its "Recommendations for Operational Monitoring at Cage Culture Aquaculture Operations" document in 2001, the applicants believe. They argue that MOE should be using the lower level for TP in order to ensure that the ecosystem is not changed by elevated phosphorus levels, and ask that MOE "confirm that local water and sediment quality is not being impacted" by doing an "annual assessment of the benthic community."

Furthermore, the applicants believe that designating a 200-metre-diameter mixing zone for determining TP levels around aquaculture sites is unacceptable. Pointing out that this is not allowed for any other user of public waters that discharges wastes that are deleterious to fish, water quality and fish habitat, the applicants requested that MOE review this policy as well.

In addition, decomposing fish waste and uneaten food create zones of low oxygen levels that "dramatically shift the species composition in the area," the applicants note. They believe that MOE has set an inappropriate threshold level for dissolved oxygen. The applicants believe that if the background level of dissolved oxygen in the thermocline – the layer of water that separates the upper oxygen-rich layer of water from the lower oxygen-poor zone – is below 12 µg/L in mid-summer or mid-winter, aquaculture should not be permitted in that area. Relying on dispersion into surrounding public waters to dilute the wastes "shifts the cost to the surrounding environment," say the applicants, who have also requested a review of the threshold limit for dissolved oxygen at aquaculture operations.

The applicants believe that MOE has, to this point, not taken into consideration the possibility that bacteria from fish, fish food and aquaculture practices may be contaminating the surrounding water. In support of their claim, they provided a list of "bacteria of significance as human pathogens isolated from fish or their immediate environment." The applicants ask that MOE assess the impact of bacterial contamination on adjacent waters.

MOE Response

MOE has agreed to undertake the review. MOE advised the applicants on May 12, 2003, that the review would take 18 months, since it would include a number of policy, legislative and regulatory components. As part of its review, MOE plans to discuss with MNR the environmental monitoring conditions found in aquaculture licences. MOE noted that environmental monitoring requirements are documented in a report entitled "Recommendations for Operational Water Quality Monitoring at Cage Culture Aquaculture Operations, Final Draft April 2001" and that the applicants had contributed to the development of this report.

MOE also indicated in its response that this *EBR* review "supports Ontario's commitment to the 2002 Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem."

ECO Comment

The ECO is pleased that MOE has agreed to do this review and looks forward to reporting on the handling of this application in our 2004/2005 annual report. However, both OMAF and MNR denied the applicants' request for a review.

When this application was received by OMAF, the *Nutrient Management Act (NMA)* had not yet been proclaimed, and regulations to manage nutrients were still under development. Although the *NMA* has since come into force, including regulations for livestock operations, it has not yet been prescribed under the *EBR* despite several requests from the ECO. Because of this, the ECO agreed with OMAF's rationale for denying the application.

MNR denied the request to review policies and regulations for escapement, enforcement and fines on the basis that licences for aquaculture operations are already subject to a five-year review process that includes opportunities for public notice and comment under the *EBR*, and that escapement is not illegal. However, the ECO has found that no applications for licences have been posted to the Registry since this became a requirement in September 2001. MNR has advised the ECO that it posts aquaculture licence applications on the Registry only after they pass the preliminary screening stage. MNR also advised that no application has proceeded past this stage as of May 2004.

The ECO first reported on the environmental impact of aquaculture operations in our 2000/2001 annual report, and continues to believe that policies and regulations with regard to open netcage aquaculture need to be strengthened to ensure that water quality is maintained and that local ecosystems are protected. *(For mininstry comments, see page 204.)*

Forestry Operations Compliance System

In April 2003 an environmental group, the Pembina Institute, used the *Environmental Bill of Rights* to request a wide-ranging review of the compliance system under which the Ontario forestry industry has been operating since 1998. The Ministry of Natural Resources designed this system, using a self-compliance model. The system requires the forest industry to plan and carry out compliance inspections on its own operations, and to report to MNR. The role of MNR staff is to conduct spot-checks, audit industry inspections, and carry out enforcement activities. (A detailed description of this application is found in the Supplement, pages 252-262.)

The applicants questioned MNR's capacity to oversee the self-inspection regime, citing critical findings from the Provincial Auditor and reviews conducted by the ministry. Using available MNR data on forest operations compliance inspections, the applicants asserted that MNR inspectors identify instances of non-compliance at a much higher rate than inspectors employed by industry. The applicants saw a need for a fundamental review of the forestry compliance system, suggesting that MNR either re-establish itself as the primary agency responsible for carrying out compliance inspections, or that the ministry establish a profession of independent forest operations inspectors. At a minimum, they saw a need to strengthen MNR's field inspection capacity, require mandatory training and certification for industry-employed inspectors, strengthen reporting practices and clarify rules. The Pembina Institute submitted its 75-page report, "Industry Self-Inspection and Compliance in the Ontario Forest Sector," as supporting evidence.

The Pembina Institute also requested reviews of a number of policies and instruments, as well as sections of the *Crown Forest Sustainability Act* and its regulations. Moreover, the applicants argued that more forestry instruments should be subject to the *EBR*, and that regulations, guidelines and policies should be posted as proposals on the Environmental Registry.

The ECO forwarded the application to MNR, but also sent it to the Ministry of the Environment because of the request that forestry instruments should be caught ("classified") under the *EBR*. MOE returned the application to the ECO, stating that MNR is responsible for classifying these instruments. However, in a separate process, MOE did address many of the applicants' other concerns by requiring improvements through the renewal of MNR's Forestry Class Environmental Assessment (see pages 94-99). (MOE's response to the application is reviewed in the Supplement, pages 213-215.)

Although MNR decided not to carry out this *EBR* review, the ministry acknowledged that many of the applicants' concerns were justified and agreed to make some significant changes. MNR said it was hiring 11 new inspectors, and would require the certification of industry-employed inspectors, improve its public reporting, and fix its computer systems to improve tracking and reporting. MNR is going to revise most of the guidelines and policies the applicants asked to have reviewed, and some high level "program" reviews may look at more substantive issues. This application under the *EBR* probably contributed to the decisions by MNR and MOE to carry out some of these improvements.

In denying this review, MNR made the valid point that the program had already been reviewed in 1999 and 2002 and that improvements are under way. Unfortunately, most of MNR's action items and future reviews of the forestry compliance system are planned to take place behind closed doors.

The ECO was disappointed with MNR's position that more instruments issued under the *CFSA* should not be subject to the *EBR*. It is true that some forestry instruments are excepted from regular notice and comment requirements of the *EBR* because they are part of an undertaking already approved under the *Environmental Assessment Act*. But the public should still have the right to submit *EBR* applications for review and investigation in relation to these instruments. MNR also did not provide persuasive arguments for refusing to post the regulations, policies and guidelines governing their forest compliance program on the Registry for public comment. For example, the Forest Compliance Handbook has never been posted on the Registry as a proposal.

The ECO suggests that MNR take a number of additional steps to improve the transparency of the forestry compliance program. Some of them are relatively easy, although they may require amendments to regulations and guidelines, or the posting of proposal notices on the Environmental Registry. The key steps are:

- posting proposed revisions to the Forest Compliance Handbook, Guideline for Forest Industry Compliance Planning, Forest Operations Inspection Program Policy and Procedure, Independent Forest Audit Process and Protocol and other related policies on the Environmental Registry for public comment, perhaps as one consolidated notice of proposed improvements to the Forest Compliance Program.

- requiring Independent Forest Audits to evaluate and report on the self-inspection capacity of forestry operators.
- releasing Independent Forest Audits more quickly and making them easily accessible to the public.
- ensuring that all public analyses of forestry inspections include data on minor infractions, which MNR categorizes as "In Compliance With Comments."
- moving quickly to develop new standards for soil rutting and site damage; consulting with the Provincial Forest Technical Committee and the public; and finalizing the revised guidance for protection of fish habitat and streams.
- reviewing its instrument classification regulation under s. 20 of the *EBR* with regard to re-examining all potential instruments under the *CFSA*.

MNR needs to continue to implement improvements to this important compliance program and must remain vigilant about regularly reviewing key facets of the program such as self-compliance. Ontario's forest compliance system has to be credible to demonstrate to the public that forest management on Crown land is sustainable. *(For mininstry comments, see page 204.)*

Refillable Soft Drink Regulations: Not Gone Yet

Ontario has hosted a spirited public policy debate on refillable and recyclable soft drink containers (SDCs) since the early 1970s. Hundreds of briefs have been written, dozens of meetings held, a number of civil and criminal trials started, and several applications launched under the *Environmental Bill of Rights*.

In March 1995, two applicants filed an *EBR* application for review requesting that Regulation 340 RRO 1990 (Container Regulation) and Regulation 357 RRO 1990 (Refillable Containers for Soft Drinks) under the *Environmental Protection Act* be replaced with policies that promote effective multi-material recycling programs and packaging stewardship in general.

Regulations 340 and 357 were designed to work together to promote curbside recycling programs such as the Blue Box system. They were established in 1985 after a multi-stakeholder group studied container re-use and recycling issues and made recommendations to the Ministry of the Environment. Regulation 357 requires that soft drink companies and retailers sell carbonated soft drinks in refillable containers. Regulation 340 provides an exemption to the ban on non-refillables, when certain conditions, including a minimum refillable sales ratio, are met. MOE hasn't enforced the regulations since 1991, and refillable SDCs have almost vanished in Ontario, though they thrive in some other jurisdictions.

The applicants felt that the 1985 refillable SDC regulations treat the soft drink industry unfairly, and that the regulations damaged the environment through negative impacts on solid waste diversion and energy use. They included two consulting studies and a range of promotional and educational material from the Canadian Soft Drink Association, a national industry association, with their application. The first study suggested that about 5 per cent of refillable glass containers are not refilled or recycled and end up being landfilled. The second consulting study noted that shipping refillable glass SDCs requires more energy than shipping lighter, non-refillable SDCs because the empty refillable containers are much heavier than plastic PET (polyethylene terepthalate) bottles or aluminum cans.

In May 1995 MOE agreed to conduct the requested *EBR* review of Regulations 340 and 357 in the broader context of overall program streamlining and planned to report its decision by early 1997. However, MOE did not complete its review until April 2003. (For further details, see the Supplement to this report, pages 365-370.)

With the passage of the *Waste Diversion Act (WDA)* in June 2002, it appeared that MOE would bring the 30-year debate on refillable SDCs to an end. In late April 2003, MOE posted a proposal notice on the Registry stating that it intended to repeal the refillable SDC regulations now that the *WDA* had been enacted. In its proposal notice, MOE stated that "regulations are outdated and unworkable, and there is clear consumer preference for recyclable over refillable containers for carbonated soft drinks. Moreover, the [*WDA*] puts a mechanism in place to ensure that waste diversion will be enhanced in Ontario, including diversion of carbonated [SDCs]."

In May 2003, the ECO urged MOE to notify the applicants that it had completed its review, and that it was proceeding with the repeal of the regulations. MOE did notify the applicants in mid-May 2003. However, as of May 2004 the refillable regulations had not been repealed. It is noteworthy that the Recycling Council of Ontario stated in its May 2003 submission to MOE that "until such time that ambitious material specific or product specific targets, consistent with other Canadian provinces, are achieved, the RCO does not support the repeal of Regulations 357 and 340."

ECO Comment

The eight-year delay in completing this *EBR* review was an unacceptable abuse of process by MOE and clearly contrary to the goals and purposes of the *EBR*. In our 1994/1995 annual report, the ECO recommended that the Ministry of the Environment announce what changes it intended to make to Ontario's soft drink refillable regulations, and added that MOE should start enforcing the refillable SDC regulations in the absence of such change. The fact that for more than 13 years MOE has refused to prosecute companies that contravene the regulations and simultaneously has failed to amend the regulations creates a strange situation for all stakeholders and undermines the concept of the rule of law.

While the ECO is pleased that MOE finally took action on this file in April 2003, the quality of the analysis presented by MOE in support of its decision to revoke the regulations was very disappointing. For example, one study provided by the applicants contained certain assumptions about recovery rates for refillable and recyclable SDCs that appear to be questionable. MOE did not address these assumptions. In making its decision, it appears that MOE decided not to review any studies on the environmental and energy performance of various SDCs. The ministry also has never stated its position on refillable PET SDCs, which are widely used in Europe and are much lighter and unbreakable.

The evidence we have reviewed indicates that refillable PET bottles are a good choice for the environment. The life-cycle assessment studies reviewed by the ECO strongly suggest that certain types of refillable containers such as refillable PET have a significantly lower environmental impact than non-refillable containers in certain conditions. Indeed, there may be a role for refillable PET in Ontario's SDC mix in the future. However, it appears that the evolution of Ontario's Blue Box system in the past 20 years would preclude a quick return to widespread use of refillable SDCs.

Some of the issues raised by the applicants have subsequently been addressed by MOE, Waste Diversion Ontario and Stewardship Ontario. For example, at the time of the application in 1995, most of the brand owners of other non-alcoholic beverages sold in Ontario – primarily juices and bottled waters – were not subject to refillable or deposit requirements and were not required to provide support for the Blue Box system. However, these beverages are primarily packaged in recyclable materials collected in the Blue Box system and their brand owners must now help fund the system under the Blue Box Program Plan developed under the *WDA*. (See also pages 78-85 in this report.)

Waste issues are of great importance to Ontario residents. Disposing of used beverage containers in landfills is an unnecessary waste of energy and resources and gobbles up precious landfill space. At the same time, the ECO recognizes that decisions about how beverage packaging waste is handled will have an important impact on the ability of the province and municipalities to manage waste problems. There is, as well, strong public support for innovative solutions to these problems. The ECO will track this issue and report on progress in future annual reports. *(For mininstry comments, see page 204.)*

Prescribing the *Fish and Wildlife Conservation Act* for Reviews under the *EBR*

In March 2003, the Ottawa Valley Chapter of the Canadian Parks and Wilderness Society (CPAWS) and Earthroots jointly filed an application for review of O. Reg. 73/94, the regulation that specifies which ministries and Acts are subject to the *Environmental Bill of Rights*. The applicants requested that s. 6(2) of the regulation be repealed in order that the *Fish and Wildlife Conservation Act (FWCA)* be prescribed for applications for review under Part IV of the *EBR*. There is no justification for this section to specifically exclude the *FWCA* from reviews under the *EBR*, the applicants stated.

Applications for review are a very important tool for citizens under the *EBR*, which allows "any two persons resident in Ontario who believe that an existing policy, Act, regulation or instrument of Ontario should be amended, repealed or revoked in order to protect the environment may apply to the Environmental Commissioner for a review of the policy, Act, regulation or instrument by the appropriate minister." Currently, there are 21 Acts prescribed for reviews under the *EBR*.

Prescribing the *FWCA* for reviews is consistent with the general purposes of the *EBR*, CPAWS and Earthroots argued. The *EBR* states that "the people of Ontario have as a common goal the protection, conservation and restoration of the natural environment for the benefit of present and future generations. While the government has the primary responsibility for achieving this goal, the people should have means to ensure that it is achieved in an effective, timely, open and fair manner."

The *FWCA* is the primary legal mechanism for the conservation of Ontario's fish and wildlife populations, and regulates activities such as hunting, trapping, fishing, and wildlife rehabilitation. Thus, it is an environmentally significant statute, the applicants asserted. The environmental significance of the Act has been recognized by several

Ministers of Natural Resources and by the ECO, and public comments received on previous Ministry of the Environment proposals to amend O. Reg. 73/94 also were supportive of making this change. CPAWS and Earthroots believed that these facts supported their case that the full public participation provisions of the *EBR* should apply to the *FWCA*.

MOE undertook this application for review, in consultation with the Ministry of Natural Resources. MOE did not find any evidence to warrant the continued exclusion of the *FWCA* from reviews under the *EBR*, stating that the *FWCA* and its regulations can reasonably be expected to have significant environmental impacts and that they would benefit from reviews under the *EBR*. MOE concluded that O. Reg. 73/94 should be amended to include the *FWCA* for applications for review.

ECO Comment

The ECO commends MOE for committing to prescribe the *FWCA* for reviews under the *EBR*. The *FWCA* is an environmentally significant statute and has been prescribed for investigations since 1996, when Part V of the *EBR* began to apply to MNR. The ECO agrees with MOE that the Act and its regulations will benefit from public opportunities for review provided by the *EBR*. In addition to the *FWCA*, the following regulations under the Act will also become eligible for reviews:

- Ontario Regulation 663/98 (Area Descriptions)
- Ontario Regulation 664/98 (Fishing Licensing)
- Ontario Regulation 665/98 (Hunting)
- Ontario Regulation 670/98 (Open Seasons – Wildlife)
- Ontario Regulation 666/98 (Possession, Buying and Selling Wildlife)
- Ontario Regulation 667/98 (Trapping)
- Ontario Regulation 668/98 (Wildlife in Captivity)
- Ontario Regulation 669/98 (Wildlife Schedules)
- Regulation 530 (Wildlife Management Units)

As demonstrated by this review itself, expanding the number of statutes prescribed under the *EBR* fosters public participation and promotes positive changes that improve environmental protection in Ontario.

The Drive Clean Program for Light-Duty Vehicles

In October 2003, the ECO received an application requesting a review of the light-duty vehicle component – cars, vans, light trucks and sport utility vehicles – of Drive Clean, the Ministry of the Environment's mandatory vehicle emissions inspection and maintenance program. The applicants presented what they described as additional new evidence that warranted an MOE review, namely, an independent study of Drive Clean undertaken in 2002 and 2003 that "adds to the already strong evidence that older vehicles are being falsely failed in the Drive Clean program." The applicants asserted that the false failure of these older vehicles is particularly unfair because their owners tend to be of more limited financial means.

According to the applicants, false failures are occurring because vehicles are not properly "preconditioned" before the Drive Clean test. In the applicants' view, the guidance given to technicians must be improved to ensure that tests are conducted not only after the engine is warm, but also after vehicle emission control systems (ECSs) are fully stabilized.

In addition, the applicants pointed out that the U.S. Environmental Protection Agency (EPA) has acknowledged that the computer model used until recently in the U.S. to predict the emissions reductions to be gained from vehicle inspection and maintenance programs overestimates the deterioration rate of ECSs in light-duty vehicles. Drive Clean's model is based on the U.S. model. According to the applicants, a newer model, officially approved by the U.S. agency in January 2002, predicts a much lower deterioration rate. The applicants asserted that the acknowledgement of the lower deterioration rate by the EPA has undercut virtually any theoretical justification of Drive Clean and makes the program's estimated claims of emission reductions "nonsense."

In December 2003, MOE's Drive Clean Office denied the request for review. The ministry stated that the resources required to carry out a review did not justify doing one at that time and that "a preliminary review of the Application did not reveal any new evidence." MOE asserted that the conclusion drawn by the applicants from the cited study is not valid since, the ministry said, the study's methodology was not statistically sound. MOE also pointed out that the warm-up period employed by Drive Clean is "longer than many similar programs elsewhere in North America."

MOE did acknowledge that "vehicles with marginal emission failures may marginally pass if there is an extended warm-up period," but argued that even vehicles with marginal passes have an emissions-related problem requiring repair. "Vehicles with properly maintained emission control systems typically have tailpipe emissions which are 75 to 90 per cent below the emission [test] standards." Also, while MOE stated that Drive Clean test results are generally reproducible, it acknowledged some vehicles have intermittent emission control system failures and therefore "may pass or fail the test by a wide margin."

On the issue of fairness, MOE pointed out that "the fact that some of these vehicles are marginal failures and may pass the emissions test sporadically does not remove the responsibility of the owner to have them repaired so that unnecessary emissions are reduced." The ministry added that owners of failing vehicles can qualify for a repair cost limit of $450 ($200 in new program areas) and a conditional pass that is valid for two years. Owners who choose to replace their vehicles may switch to an older or newer vehicle, as long as it passes the Drive Clean test. There is a complaint-handling process in place to resolve disputes about tests and repairs.

MOE also indicated that it welcomes the U.S. EPA's new model and that it is assisting Environment Canada in the development of a Canadian version, expected to be available in early 2004. MOE acknowledged that the new model indicates that the ECSs on newer vehicles should not deteriorate as quickly as previously thought. The ministry said that a small decrease in the failure rate across the whole vehicle fleet has been noted since the start of the program and that it is committed to continuing to monitor these trends. MOE also pointed out, however, that Drive Clean plays an important role by requiring repairs to vehicles that fail by a very wide margin. According to the ministry, gross-emitting vehicles can produce more than 20 times the pollution of properly tuned vehicles.

MOE informed the applicants that it intends to undertake a comprehensive review in 2006/2007 of the program design and operations, and that the "issues raised in the Application will be considered as part of the review at that time." The ministry also indicated that it will make Drive Clean raw test data available immediately, as well as its 1999-2003 emissions reduction report, once it is approved.

ECO Comment

The ECO is pleased that MOE engaged in a discussion of the evidence provided by the applicants and their related concerns about Drive Clean. MOE's six-page decision summary allows for greater insight into some of the observations and assumptions made in the operation of Drive Clean. The availability of Drive Clean raw test data and the most recent emissions reductions report should help improve the transparency and public understanding of the value of Drive Clean. The ECO hopes that the technical report will be made easily accessible, and that its release will be announced through the posting of an information notice on the Registry.

MOE should also compile and publish any studies done for the ministry on the phenomenon of vehicles that fail the Drive Clean test intermittently. It would be in the public interest to learn how widespread this phenomenon is, and the extent to which these vehicles fail intermittently because of intermittent faults in emission control systems or because of inadequate and inconsistent preconditioning.

MOE raised some valid criticisms of the study cited by the applicants. However, it did not provide nor make public any scientific studies either to refute the claims made in the application or to validate its own claims. The ministry could have provided a more convincing argument on the adequacy of the existing preconditioning protocols for the vast majority of vehicles, and could also have commented on whether the ministry knows if technicians are complying with the protocols. Review applicants under the *EBR* should not be required to *prove* that their concerns merit a review. The ECO believes that the onus is on the ministry to study a matter and then provide the *EBR* applicants with a reasoned response, based on the evidence, as to why a review should not be done. In this case, the applicants provided *prima facie* evidence of a problem, but MOE declined to undertake a full review.

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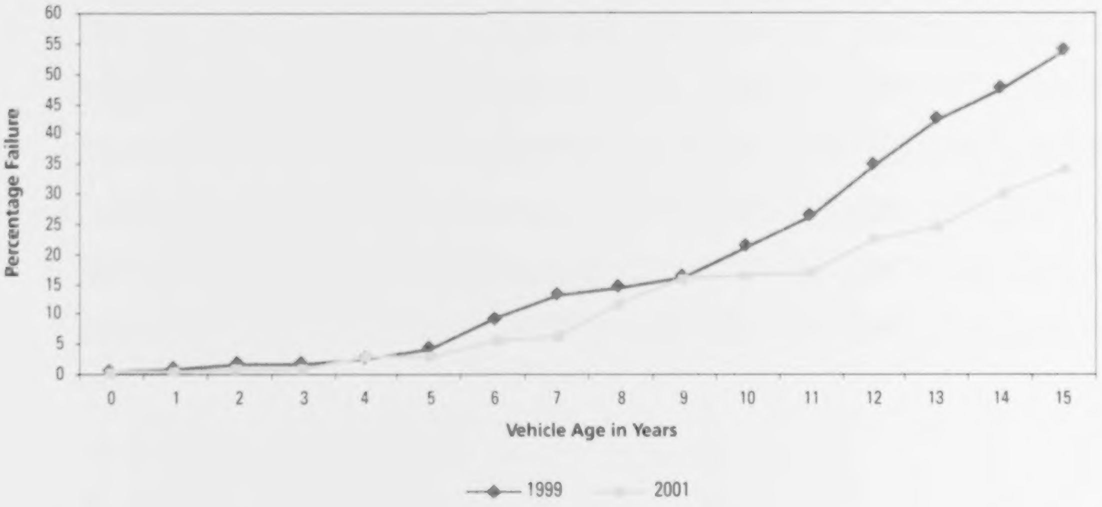
CLEAN
Accredited by the Ontario Ministry of the Environment

In its response, the ministry also addressed the applicants' second main point, acknowledging that emission control systems in newer light-duty vehicles are more reliable than originally thought. The ECO is pleased that MOE is monitoring this trend in Ontario's vehicle fleet and that it has already made available – to the ECO and to members of the public who specifically request them – its 1999-2000 and 1999-2001 technical summaries of emission reductions. Among other things, these reports calculate and discuss the overall annual failure rates for Ontario's fleet and include tables that reveal annual vehicle failure rates by model year.

The Drive Clean data do indicate that newer model vehicles may have more reliable emission control systems (see graph below). These trends are in line with the observation by the U.S. EPA that significant advances were made in the durability of emission control technology of vehicles in the late 1980s. It will be interesting to monitor whether ECSs continue to be durable. MOE's emissions reductions reports will allow the public to monitor these trends directly. Any presentation of information from 2003 onward will need to account for the fact that Drive Clean standards for light-duty vehicles were ratcheted down by 11.5 per cent on January 1, 2003, and that they will be further reduced by 11.5 per cent on January 1, 2005.

Drive Clean Program Failure Rate by Age of Vehicle (light-duty vehicle component)



In February 2004, the ministry informed the ECO that its planned 2006/2007 review will help to determine whether and how the program will continue after 2008, when the current contracts with Drive Clean facilities expire. In March 2004, the media reported that MOE planned to phase out Drive Clean by 2008. The Premier subsequently denied that a decision to phase out the program had been made. In advance of any decision about the future of Drive Clean, MOE should conduct, compile and make available publicly relevant background research to ensure that results can be considered by stakeholders and the public. In its review, MOE should reflect on the emerging trends and consider issues such as whether new emission control technologies significantly undermine the premise on which the program is based, whether Drive Clean is still providing a reasonable environmental benefit, and whether vehicles should be tested less frequently. In reviewing Drive Clean, it will be important to keep in mind that inspection and maintenance programs were developed in the U.S in the late 1970s, at a time when allowable emission limits for new vehicles were much higher and emission control systems much less reliable.

(For mininstry comments, see pages 204-205.)

Tobacco Leaf Burning: MOE Stops Smoking

In December 2002, the ECO forwarded an application for investigation to the Ministry of the Environment that alleged that the applicants' neighbour was burning large quantities of unusable tobacco leaves every year from August through September. The applicants contended that this was in contravention of s.14(1) of the *Environmental Protection Act (EPA)*, since it adversely affected their health and was a nuisance. The application included pictures of smoke issuing from the neighbour's barn and a heavy layer of smoke in the air above various fields. The smoke sometimes engulfed the applicants' horse barns. The applicants contended that on days that air quality warnings were issued, it was inappropriate for their neighbour to contribute to the already poor quality of the air by burning tobacco leaves.

This was not the first time that the applicants had raised concerns about this activity, having notified MOE in September 1994 that the neighbour was burning tobacco leaves. In response, an environmental officer from MOE's London district office advised the neighbour that if the practice was causing an adverse effect, a charge could be laid under s.14(1) of the *EPA*. The officer also told the neighbour about precautions that could be taken to avoid adversely affecting the applicants. However, no other enforcement action was taken at that time, and it now appears that in the following years the neighbour continued to burn the tobacco every August and September.

Ministry response

MOE agreed to undertake the requested investigation in December 2002. On May 9, 2003, MOE inspected the neighbour's farm. MOE then contacted the Ontario Ministry of Agriculture and Food and was advised that burning tobacco leaves is not a normal farm practice. MOE advised the neighbour that if this practice continued, the ministry would pursue mandatory measures to ensure that it was stopped. In its response to the applicants, MOE described its investigation and provided a contact name and telephone number to call if they had further questions.

ECO Comment

The ECO is pleased that MOE agreed to undertake an investigation into the alleged adverse effects caused by smoke and that advice was sought from the Ministry of Agriculture and Food. As noted in our 2000/2001 annual report, MOE has sometimes referred smoke complaints to the local municipality rather than investigating itself. In its response to the applicants, MOE advised them that mandatory measures would be pursued if the ministry was able to substantiate further complaints. However, the onus remained on the applicants to complain if the burning continued. Since this was not the first time that MOE had investigated and advised the neighbour that charges could be laid under s.14(1) of the *EPA*, it would have been appropriate for MOE to have taken enforcement action such as prosecution or issuing some type of Order against the neighbour. Moreover, it is unclear from MOE's response to the applicants whether the ministry actually found evidence that tobacco leaves had been burned when it visited in May 2003. Instead, this information would have been easily obtained in August, during the time the burning of tobacco leaves was alleged to be occurring daily.

In February 2004, the applicants advised the ECO that they called MOE in September 2003 to report that the neighbour had resumed burning tobacco leaves in August despite MOE's warning of May 2003. After investigating, MOE issued a Provincial Officer's Order requiring the neighbour to discontinue the practice immediately and to consult with the Ministry of Agriculture and Food on a recommended method of disposal for spoiled tobacco leaves. The ECO is pleased that MOE took action when the applicants called the ministry in September 2003.

Red Hill Creek Expressway

The Red Hill Creek Expressway is a large, environmentally significant project that has been extremely controversial over many years in the Hamilton region. The proposed expressway will be built in an environmentally sensitive area, through wetlands and close to a landfill site that had served the region in the past. This former landfill site is also significant, since it was found to be leaching persistent contaminants such as PCBs and pesticides into Red Hill Creek. The City of Hamilton plans to excavate waste from the former landfill site in order to construct the expressway.

In May 2003, applicants from the area submitted an *EBR* application for investigation to the Ministry of the Environment, alleging that the City of Hamilton had committed an offence under the *Environmental Assessment Act (EAA)* by failing to comply with terms and conditions of Order in Council 582/97. This declaration order exempted the city from the need for MOE approval for the expressway under the *EAA*, and it incorporated extensive commitments set out by the city in a 1996 submission to MOE about the project. The declaration order was made subject to the city's satisfying the conditions and commitments in those documents. These commitments included public consultation, assessment and monitoring, reporting, and obtaining permits and approvals (for more details, see pages 310-317 of the Supplement to this report).

The city's failure to comply with the process set out in its 1996 submission to MOE, the applicants argue, is environmentally significant because construction of the expressway as proposed would result in harm to endangered wildlife and two sensitive marshes, as well as contributing to air pollution and threatening human health.

In response to the application, MOE concluded that it was not in the public interest to conduct an investigation, despite acknowledging problems with the city's compliance with the ministry's declaration order.

Public consultation

The applicants allege that the city failed to carry out its public consultation obligations when it disbanded the Community Stakeholder Committee. But MOE argued that the 1996 submission provided the city with flexibility in meeting its commitments to establish a stakeholder consultation program. MOE also noted that the city had indicated that it would implement a community relations program during the pre-construction, construction, monitoring and maintenance phases of the project. MOE added that the ministry would follow up with the city to determine whether this proposed community relations program satisfies the requirements of the declaration order. However, MOE declined to investigate this issue further, since that the alleged contravention took place in 1998 and was therefore beyond the six-month standard limitation period in the *Provincial Offences Act (POA)*.

In response to the allegations that a Landowners Committee was never formed and that a Government Agency Committee was formed but never met – both commitments in the city's 1996 submission – MOE repeated that the city had flexibility in its stakeholder consultation program. While MOE conceded that the failure of the city to create the Landowners Committee and failure to have the Government Agency Committee meet might be seen as a potential non-compliance issue, the ministry doubted this could be successfully prosecuted, given the wording of the city's 1996 submission. Therefore, MOE decided not to investigate further, stating that the alleged contravention was not serious enough to warrant an investigation. However, the ministry undertook to follow up with the city to determine how it had satisfied the mandate of both committees.

Assessment and monitoring

MOE stated that it would not investigate the applicants' allegations that the city did not meet its assessment and monitoring obligations since the city had released draft and final reports and had indicated that additional reports were being developed. MOE also dismissed the applicants' allegation that the city had not responded to stakeholder comments on draft reports before releasing them as final reports. The ministry believes this requirement was satisfied by a March 2003 report on public consultation that included issues raised and the city's response, since the declaration order did not specify that the city must consult on final technical reports issued for the project. MOE declined to investigate further in relation to an allegation that a Design Report had not been completed, noting that the city intended to complete the report as part of the Detailed Design, Construction and Monitoring Stage, and that there was no time requirement for the completion of this report.

Permits and approvals

MOE decided not to investigate further any of the applicants' allegations that required permits and approvals had not been obtained, even though the city was stating publicly in spring 2003 that it was ready to proceed with construction imminently. MOE stated that deadlines for obtaining the necessary permits were not specified in the conditions of the declaration order.

MOE concluded that the majority of the alleged contraventions raised by the applicants did not warrant further investigation. However, the ministry stated that it takes compliance issues seriously and would continue to monitor a number of matters related to the city's compliance with the declaration order.

ECO Comment

The language in the City of Hamilton's 1996 submission that was incorporated into MOE's declaration order was detailed and specific in setting out the proposed impact assessment process. The 1996 submission stated that the "goal of the consultation program is to ensure that all stakeholders are able to provide input to the project in a meaningful and resource (money, time and energy) efficient way," and went on to give specific details of the teams and committees that would be formed and engaged, including a Project Team, the Community Stakeholders Committee, the Landowners Committee, and the Government Agency Committee.

In denying the applicants' request for an investigation, MOE consistently took the position that the city had complied with the "spirit" if not the letter of the commitments the city had made in its 1996 submission. However, the applicants presented numerous examples of specific consultation commitments that were not met. The examples of alternative consultation that MOE suggested had met the spirit of the city's 1996 submission lacked credibility and did not seem like adequate replacements. The language in the declaration order was very clear that the city was to comply with the commitments it had made: "...the Proponent *shall* carry out the planning and implementation for their project *in accordance with* their submission dated May 6, 1996..." (italics added).

As noted above, MOE declined to investigate further the alleged contravention in relation to the disbanding of the Community Stakeholder Committee, stating that it took place in 1998 and was therefore beyond the limitation period in the *Provincial Offences Act*. However, the commitment in the 1996 submission was that this committee would provide input into the assessment process to determine a final design for the expressway, a process that was still faltering, in the eyes of the applicants, at the time this application was made. Therefore, the alleged contravention was still occurring and not subject to the limitation period in the *POA*.

With respect to a number of other allegations, MOE decided not to investigate because the ministry believed the declaration order did not have any time requirements specified for completing reports or obtaining approvals. However, the 1996 submission and the declaration order clearly indicated that these requirements would be completed prior to finalizing the design and beginning construction on the expressway. The applicants alleged that some construction had already begun in the spring of 2003. MOE did not respond to this allegation.

It should also be noted that the City of Hamilton withheld certain environmental assessment reports. In response to a request by media organizations under the *Municipal Freedom of Information and Protection of Privacy Act*, the city claimed solicitor-client privilege in order to keep reports related to the Red Hill Creek Southern Flying Squirrel Population Study confidential. In June 2003, Ontario's Information and Privacy Commissioner released a decision stating that the city was required to release these reports because they were prepared for the purpose of meeting the requirements of the declaration order. The city has now released the reports.

Although MOE did acknowledge numerous ways in which the city had failed to comply with commitments incorporated into the declaration order, the ministry appeared reluctant to take any action to ensure the city's compliance with the order. MOE did, however, commit to a few minor follow-up actions in relation to some allegations that it had declined to investigate further.

This application highlights the fact that MOE is not prepared to vigorously enforce requirements that flow out of the *EAA* process. *(For mininstry comments, see page 205.)*

Highway Construction and Failings of the Environmental Assessment Process

In May 2003, the ECO received an application under the *EBR* about the expansion of Highway 69 in the Muskoka region, which was constructed by the Ministry of Transportation and its contractor, Pioneer Construction, beginning in 2000. The applicants were concerned about the obstruction of a water course and the resulting flooding of their land, which killed a number of mature trees. The applicants alleged contraventions of the *Environmental Assessment Act (EAA)* and the *Environmental Protection Act (EPA)*.

Although the applicants focused on local environmental concerns about construction practices, the case illustrates much broader systemic problems, both with MTO's conduct as the proponent of highway construction projects and with the monitoring of environmental assessment approvals by the Ministry of the Environment, which is responsible for enforcing the *Environmental Assessment Act*. (A more detailed review of this case is found on pages 303-310 of the Supplement.)

In 1995/1996, this highway expansion project had been the subject of an individual environmental assessment (EA) under the *EAA*. The development of the EA involved considerable disagreement between MTO and MOE. Among other things, MOE staff identified data gaps and deficiencies in MTO's EA, and saw a need for more detailed, site-specific information and better discussion of anticipated impacts, as well the potential for mitigating those impacts. MTO resisted modifying the EA document. Eventually, in October 1996, the Minister of the Environment approved the EA – before detailed environmental studies had been carried out. However, terms and conditions attached to the EA approval did require that such studies be completed and submitted to MOE's satisfaction before construction contracts were tendered.

Before resorting to their application for investigation under the *Environmental Bill of Rights*, the applicants had already complained directly to MTO and MOE about the flooding of land. MOE district staff looked into the complaints and decided that MTO's contractor was in non-compliance with a part of the EA approval that had been issued for the project. An on-site meeting was held in October 2002, involving MOE, MTO, MTO's contractor and the property owners. It was agreed that MTO would provide MOE and the property owners with a written proposal to address the concerns. However, without the approval of MOE or the property owners, MTO went ahead with work in early November to widen a ditch and create an access berm. MTO merely advised MOE by letter that the flooding issue had been resolved. MTO provided photos of its work, which MOE relied on to decide that the issue had indeed been taken care of.

The property owners did not agree that the flooding issue had been resolved, and submitted their *EBR* application for investigation in May 2003, emphasizing the obstruction of a natural water course, year-round flooding, extensive siltation, and faulty installation of culverts. The ECO forwarded this application to MOE.

MOE denied the applicants' request for investigation, stating that the alleged contravention of the *Environmental Assessment Act* had already been investigated, and that the file had now been closed because the six-month statute of limitations had passed. MOE also decided not to investigate the contravention of the *Environmental Protection Act* because the adverse effects were not considered serious enough.

However, to assess the flooding damage raised in the *EBR* application, MOE district staff undertook a second site visit in June 2003, and produced an internal memo stating that: "...there were trees killed by the recent flooding, but this should be pursued civilly by [the applicant]. Although it seems obvious the trees died from the flooding, one would have to prove this. Pursuing MTO for killing 15-20 mature trees possibly killed during a construction project is not a priority."

MOE's site visit also revealed that there were aggregate berms deposited on a wetland area, running parallel to the highway at several locations. This construction practice contravened a commitment that MTO had made under the EA approval, which was to keep excess construction materials at least two metres above groundwater and 30 metres from waterbodies.

MTO had also made several other commitments as part of the EA conditions of approval:

- ...watercourses shall not be diverted or blocked.
- ...construction material, excess material, construction debris and empty containers shall be stored or stockpiled away from watercourses and watercourse banks.
- ...excavated material is situated in such a manner and location to prevent the erosion and/or deposition of this material into wetlands or open water areas or onto private property.
- To the extent feasible, the existing drainage regime within the upland forest areas will be maintained. Ditch design and outlet points have been designed such that long term ponding of water will not occur in upland forest areas.
- ...existing drainage regime will be maintained for all wetland areas. Culverts have been provided at wetland edges and where the highway bisects a wetland to ensure that water can continue to flow within the wetland area.

It appears that these clear provisions also were not followed in this case.

Having uncovered these concerns, MOE took firm and, in the ECO's view, appropriate action. MOE staff began to draft a Provincial Officer's Order requiring MTO to carry out an environmental compliance audit on the completed portion of the Highway 69 expansion project. MOE issued this Provincial Officer's Order to MTO on May 11, 2004, and also provided a copy to the applicants. A key requirement of the order is that MTO must hire a consultant to report on the construction practices and mitigation measures used in the Highway 69 project, and compare them to the procedures outlined in the EA approval documents, including a review of erosion control, diversion of watercourses, drainage studies, as well as handling and placement of excess materials. Among other things, the Provincial Officer's Order requires MTO to adhere to the terms and conditions of the EA approval documents on any remaining portions of the undertaking. By January 2005, MTO must submit a final report to MOE outlining the results of the audit, and recommendations on how to improve issues identified for this and future MTO road construction and maintenance projects.

While the Provincial Officer's Order should help to resolve the concerns about construction practices raised by this application, there are several additional issues deserving attention, notably MOE's capacity to audit compliance with EA approvals.

Although MOE's Environmental Assessment Branch had identified numerous deficiencies in the EA for this highway project in 1995/1996, it appears their involvement largely ended after the EA approval was issued in 1996. For example, according to a condition of EA approval, MOE's Northern Region Director was supposed to be satisfied with reports provided by MTO prior to construction contracts' being tendered. Reports were to include baseline data on current soil, air, water and sediment quality, especially for sensitive areas. However, MOE can find no records to confirm whether MOE staff reviewed these reports or found them satisfactory. Also, EA compliance monitoring is not assigned to MOE district staff, so there was effectively no one at MOE auditing this file. In the absence of a complaint from the public, it seems that MOE had no mechanism to audit compliance.

Furthermore, MOE could prosecute only if the complaint was received within six months of the alleged contravention. But members of the public can complain only if they can recognize evidence of non-compliance, and they need the EA approval documents to do this. In this instance, the complainants asked MTO for the EA approval documents, but allege they were forced to use the Freedom of Information process, which apparently took a year. However, EA documents are intended to be public, and the complainants were directly affected parties. These multiple constraints effectively thwarted the efforts of the applicants to have MOE enforce the *Environmental Assessment Act*.

The ECO saw no evidence that MOE investigated the applicants' allegation that they had to resort to Freedom of Information legislation to access EA approval documents. MOE should have looked into this. Moreover, the ECO reminds MTO of its responsibility and stated commitments to transparent public consultation. MTO may need to review its practices in this regard, to ensure that this type of incident is not repeated.

This application illustrates very starkly how difficult it can be for members of the public to gain access to highway construction approval documents, permits or background scientific reports, or even to learn what approval documents might exist. At various times, the applicants asked MOE for copies of several approval documents, but it seems that MOE had neither access to nor knowledge of them. This is a serious concern, since MOE is required by law to maintain a record of EA approval documents, and to make them available to the public upon request.

Over the years, the ECO has received other applications with concerns about MTO's highway planning processes and construction practices. For example, in 1997, applicants described a long-standing erosion problem on private property, caused by the construction of Highway 401. At the time, the ECO noted that "the ministries involved are urged to ensure that gaps and overlaps in jurisdiction over watershed management matters do not become a basis for allowing these types of problems to continue unaddressed for many years."

Unfortunately, Ontario residents with environmental concerns about MTO's highway construction policies and practices have rather limited opportunities to apply the normal *EBR* tools, because MTO is not prescribed for reviews under the *EBR*. This means that it is not possible to submit an *EBR* application requesting that MTO review its environmental policies and practices for highway construction. However, the ECO is hopeful that MOE's issuance of a Provincial Officer's Order will trigger a healthy discussion between the two ministries with regard to highway construction policies and practices, and that this discussion will ultimately lead to on-the-ground improvements.

In April 2004, MTO posted a proposal on the Registry for Environmental Protection Requirements for Transportation Planning and Highway Design, Construction, Operation and Maintenance (PE04E4551). The ministry explained that it recognized a need to develop a consistent, systematic approval to environmental management by improving how MTO assesses environmental risk and controls the environmental impacts resulting from its activities. The ministry is proceeding with an Environmental Standards Project as a first step, and has outlined a plan for posting notices on the Environmental Registry (XE02E4550). The ECO will monitor MTO's progress on these postings.

Overall, this application illustrates a number of systemic weaknesses in the EA process: that MOE does not have the resources to properly monitor the large number of approvals it issues under the *EAA*; that MOE continues to rely on a complaint-based compliance model; and that MOE is practically unable to prosecute proponents for failures to comply with the *EAA*. The ECO urges MOE to address the unrealistically short six-month statute of limitations under the *Environmental Assessment Act*, the difficulties faced by members of the public when trying to access relevant EA approval documents, and the absence of compliance auditing of EA approvals. It would also be very helpful for MOE and MTO to work together on ensuring that MTO is prescribed for reviews under the *EBR*. *(For mininstry comments, see page 205.)*

Recommendation 13

The ECO recommends that MOE address the difficulties faced by members of the public when trying to access relevant environmental assessment approval documents.

Proposed County of Simcoe Landfill (Site 41)

In February 2004, the ECO received an application under the *Environmental Bill of Rights* requesting that the Ministry of the Environment review the certificate of approval (C of A) – the operating permit – for a proposed landfill site in Simcoe County.

The planned landfill, also known as "Site 41," is located near the Town of Midland. The proposal involves landfilling on 21 hectares of land within a total site area of 60 hectares.

The applicants have questioned the appropriateness of developing Site 41 for two main reasons. First, the applicants noted numerous technical issues raised in 2003 by the Ministry of the Environment and several independent technical experts relating to the county's proposed detailed design and operation parameters for the landfill. Second, because of impending changes to Ontario law and policy related to source water protection, the applicants question whether it is prudent to consider the landfill's development. MOE declined to undertake the review. The ECO disagrees with that decision.

In 1979, a landfill search began for the North Simcoe area that led eventually to the selection of Site 41. Part of that search involved investigating the expansion of an existing landfill site (called the Pauze landfill). But the Pauze site was rejected because studies showed that it was polluting the source of drinking water for the nearby Village of Perkinsfield. In fact, Perkinsfield was provided with piped water due to the groundwater contamination. The Pauze landfill is located in the vicinity of Site 41, contributing to the ongoing opposition to Site 41.

Following an environmental assessment (EA) approval process, a public hearing about Site 41 was held under the *Consolidated Hearings Act*. In November 1989 the hearing board decided not to approve the landfill site, but Cabinet overturned that decision in June 1990 and required the hearing to resume. Following resumption of the hearing process, the board approved Site 41 in 1995 and issued specific conditions in 1996. Two other legal challenges made after the board's approval ruling were not successful. As a result, MOE issued a C of A for Site 41 in April 1998, contingent on the ministry's satisfaction with an array of technical provisions related to environmental protection that the county would submit in the future. MOE would also have to issue several other environmental permits for landfill development – stormwater management and site dewatering to allow for landfill construction.

In January 2003, the County of Simcoe provided MOE with more information about the proposed landfill site's design and operation, and in March 2003, MOE responded with comments on gull management at the site. The Huronia Airport is only 6.5 km away from Site 41, and Transport Canada's guideline recommends a distance of 8 km in order to minimize the human safety risk of gulls colliding with aircraft.

In June 2003, MOE provided the county with a list of 81 additional comments on the remainder of its January 2003 submission. The ministry was concerned about the need for more assessment of the potential impacts of the landfill on a nearby creek. MOE also urged the county to defer plans to place waste in the northwest corner of the proposed landfilling area until more data were available, or to eliminate that part of the site from the fill area. The ministry was also concerned about the potential impact of off-site pumping of groundwater on the performance of Site 41's leachate collection system. The landfill's design relies on pressure (called an "upward gradient") from groundwater below the proposed site to contain leachate, the contaminated liquid produced by a landfill.

Also in 2003, a peer review by technical experts prepared for local concerned citizens and Tiny Township, the host municipality, identified numerous issues relating to groundwater and surface water protection. While these reviewers noted that the landfill site could be developed if those concerns were addressed, the review comments pointed to the sensitive nature of the proposed site: Site 41's characteristics would "require that more than usual precautions" be "undertaken to design, construct and operate the Site in accordance with stated requirements." Concerns were also expressed with the completeness of the information submitted for review: the "proposed detailed design requirements for the construction of the landfill are inadequate to ensure the appropriate environmental and engineering control during the active life of the landfill." The applicants included a copy of both MOE and peer review comments as part of the *EBR* application for review.

In declining the applicants' request for a review, MOE indicated that the county had responded to many issues the ministry raised in 2003. However, MOE acknowledged that follow-up reports remain outstanding on the following issues: gull management, surface water discharge from landfill construction activities, and the capacity of local wastewater facilities to accept leachate. The ECO notes that these matters remain unresolved six years after the C of A established the information requirements.

Several key changes to Ontario's regulatory framework related to source water protection remain on the horizon and partially formed the basis of the applicants' request for review. In February 2004, MOE released a draft policy paper on source water protection to implement recommendations made by Justice O'Connor in the Report of the Walkerton Inquiry. That paper outlines the province's intent to develop source water protection legislation so that watersheds across Ontario have plans in place to protect that water. In future, sound water management decisions will be based on an understanding of the relationship between water quality, water use, and conditions within the watershed, and effective protection programs will be built on accurate and representative assessments of threats to the water source. The ministry also proposes to strengthen its rules for approval of watertakings by the end of 2004. The ECO notes that these new rules could have a bearing on the plans to dewater the site, necessary for the construction of the landfill.

In denying the application, MOE told the applicants that a review of the C of A was already under way and that undertaking the review would create a duplicate exercise. MOE's narrow view is unfortunate. The ministry's consideration of the landfill's design and operation focuses on specific technical factors. As well, MOE's intention to review the C of A in light of existing policies, Acts and regulations does not address the applicants' request that MOE broadly consider the merit of developing Site 41 in light of the impending changes to Ontario's regulatory framework on source protection. The approach to source protection being considered by MOE was not part of the ministry's approach to watershed management in the mid-1990s when the hearing board issued its approval for Site 41, or in 1998, when MOE issued the C of A. Thus, the broader review requested by the applicant would not constitute a duplicate exercise.

The ministry's denial of the application also stated that MOE consulted with the public, especially the local community, on all ministry approvals related to the North Simcoe Landfill Site 41, and that MOE would continue to involve the public in the approvals process. The ministry also noted that the public participated in the process to select the landfill site, and in the subsequent hearing.

The ECO observes that many of the technical details related to the landfill's design and operation were not available during the landfill siting process or at the hearing. Due to an exception found in s. 32 of the *Environmental Bill of Rights*, MOE is not required to post proposal notices for these types of Cs of A, nor to explain publicly how it has addressed any citizen concerns (see pages 52-59 of this annual report for more detail). For information, the public must rely on any forums organized municipally or by the community monitoring committee – the "CMC," which is made up of several municipal representatives and citizens living within three kilometres of Site 41.

As a related problem, the CMC alleges it was kept in the dark about the County of Simcoe's plans to seek approval for a stormwater management system at Site 41. The county did not provide the CMC with copies of the application documents sent to MOE in April 2003, or with copies of correspondence between the ministry and the county relating to the application. This communication continued until January 2004, when MOE issued an approval under the *Ontario Water Resources Act*. A Registry notice would have provided transparency and an opportunity for public input into another environmentally significant aspect of the proposed landfill site.

The ECO believes that a broad review of the Site 41 C of A was warranted to increase government accountability for environmental decision-making on this highly contentious proposal. It would have been appropriate for the Ministry of the Environment to evaluate the certificate of approval in light of the province's intention to strengthen source water protection requirements.

PART 6:

Appeals, Lawsuits and Whistleblowers

Ontarians have the right to comment on government proposals, ask for a review of current laws, or request an investigation if they think someone is breaking a significant environmental law. But they also have other opportunities for using the *Environmental Bill of Rights*. These include:

- The right to request appeals of certain ministry decisions.
- The right to sue for damages for direct economic or personal loss because of a public nuisance that has harmed the environment.
- The right to sue if someone is breaking, or is about to break, an environmental law that has caused, or will cause, harm to a public resource.
- The right to employee protection against reprisals for reporting environmental violations in the workplace and for using the rights available to them under the *EBR*.

Appeals

The *EBR* gives Ontarians the right to apply for leave to appeal ministry decisions to issue certain instruments, such as the permits, licences or certificates of approval granted to companies or individuals. The person seeking leave to appeal must apply to the proper appeal body, such as the Environmental Review Tribunal (ERT), within 15 days of the decision's being posted on the Environmental Registry. They must show they have an "interest" in the decision, that no "reasonable" person could have made the decision, and that it could result in significant harm to the environment.

During this past reporting period, concerned residents and environmental groups filed several leave to appeal applications on a range of approvals and Orders issued by the Ministry of the Environment. The MOE instruments that were appealed included permits to take water (PTTWs), certificates of approval (Cs of A), and Orders for remedial work. Discussion of two of these leave to appeal applications is set out below. (Further details on these applications are provided in the chart on leave to appeal applications found on pages 339-351 in the Supplement to this report.)

Status of Appeals

During the reporting period eight new applications for leave to appeal were initiated, three of which were granted by the ERT. One of these applications was not adjudicated by the ERT because MOE revoked the C of A. In another application, the ERT did not have jurisdiction because the leave to appeal application was filed with the ERT after the 15-day period for filing applications had ended. The remaining applications were denied because the ERT determined that the applicants did not meet the test for seeking leave to appeal.

Leave to Appeal Application Results (as of March 31, 2004)

No jurisdiction/Not subject to leave to appeal application	2
Leave Granted	3
Leave Denied	3

MOE Instruments

Seven "instrument holder" notices of appeal for MOE instruments were posted on the Environmental Registry during the reporting period. The *EBR* requires the ECO to post notices of these appeals, which are launched by companies or individuals who were denied an approval or were unsatisfied with its terms and conditions. The notices alert members of the public who may then decide to become involved with such an appeal.

MMAH Instruments

During the reporting period the ECO posted 12 notices of appeal for Ministry of Municipal Affairs and Housing instruments on the Registry. Residents, companies, or municipalities launched these appeals in relation to decisions made by MMAH under the *Planning Act* to approve a municipality's official plan, an official plan amendment, and other approvals in areas of Ontario where no official plan is in place. It should be noted that there are hundreds of appeals to the Ontario Municipal Board every year regarding official plans, but under the *Planning Act* only a small number of approvals in a few geographic regions require direct approval by the Minister of Municipal Affairs and Housing. It is only these approvals that are prescribed as instruments under the *EBR* and for which notices of appeal are placed on the Registry.

MNR and MNDM Instruments

There were no instrument holder appeals or leave to appeal applications with respect to instruments issued by the Ministry of Natural Resources or Northern Development and Mines in 2003/2004.

McCarthy Quarry

In the 2002/2003 annual report, the ECO reported on two successful leave to appeal applications related to a PTTW to dewater a proposed quarry in Simcoe County. In January 2004, the ERT granted the same applicants leave to appeal a sewage works C of A for the same quarry. In March 2004, MOE applied for judicial review of the ERT's decision to grant this leave to appeal, claiming that the ERT incorrectly applied the leave test under the *EBR* and made other legal and factual errors. As of May 2004, the application for judicial review was in progress.

Groundhog River

In September 2003, a number of applicants sought leave to appeal MOE's decision to issue an approval for the construction and operation of a mine water treatment system. The applicants alleged that the proponent, Falconbridge, intends to discharge mining effluent through a discharge pipe into the Groundhog River, a provincial waterway park and a provincially significant sturgeon spawning area. The ERT denied leave in October 2003, stating that MOE had considered the applicants' concerns and responded to them in various conditions to the C of A. (For more on the Falconbridge Groundhog River approval, see pages 11-13.)

Inco – Port Colborne

In last year's annual report, the ECO described an application for leave to appeal by a group of residents in Port Colborne. The applicants were concerned about MOE's decision to issue an order for remedial work to Inco Limited at its Port Colborne base metal refinery. In October 2003, the parties reached a settlement and the residents withdrew their appeals. The ERT ordered MOE to re-issue the Order with a new expiry date of December 31, 2004.

Public Nuisance Cases

Before the *EBR* came into force in 1994, claims for public nuisances had to be brought to court by the Attorney General or with leave of the Attorney General. Under s. 103 of the *EBR*, someone who has suffered direct economic loss or personal injury as a result of a public nuisance can bring forward a claim and no longer needs the approval of the Attorney General. No new cases, including public nuisance as a cause of action, came to the ECO's attention during the reporting period, although several cases launched in previous years continue to move through the courts.

In previous annual reports, the ECO has described a public nuisance class action related to the Port Colborne Inco facility (*Pearson v. Inco Limited et al*, noted above). In February 2004, the Divisional Court upheld the lower court's decision that it was not appropriate to certify this as a class action. The plaintiff has filed an application for leave to appeal this decision to the Ontario Court of Appeal, but the court has not yet indicated if it will hear the appeal. Also during the past reporting year, in March 2004, MOE agreed to a settlement with the plaintiff in this action, leaving Inco as the only defendant in the lawsuit.

In another public nuisance class action under the *EBR*, *Grace v. Fort Erie et al.*, the plaintiff's motion for certification as a class action was refused in July 2003. Although the class action in public nuisance will not be proceeding, the court ruled that the plaintiff could proceed as an individual with her claim in negligence.

The Right to Sue for Harm to a Public Resource

The *EBR* gives Ontarians the right to sue if someone is violating, or is about to violate, an environmentally significant Act, regulation or instrument, and has harmed, or will harm, a public resource. To date, the only court action brought under the Harm to a Public Resource provisions of the *EBR* for which notice has been provided to the ECO is the proceeding started in 1998 by the Braeker family against the Ministry of the Environment and Max Karge, an owner of an illegal tire dump. Unfortunately, civil actions often take a long time to be resolved if there is no settlement, and the Braeker action is ongoing. The ECO will continue to monitor this case, and will report on its ultimate conclusion.

Whistleblower Rights

The *EBR* protects employees from reprisals by employers if they report unsafe environmental practices of their employers or otherwise use their rights under the *EBR*. There were no whistleblower cases in this reporting period. Since the *EBR* was established, no complainants to the Ontario Labour Relations Board have invoked this right.

PART 7:

Ministry Progress

The ECO follows up annually on the progress made by prescribed ministries in implementing recommendations made in previous years. The ECO has requested progress reports from those ministries on recommendations made in our last annual report and on key recommendations of previous years. In some cases, ministries voluntarily submit updates, and these are also summarized in this section.

Ministry Response to Past ECO Recommendations

Update on Fisheries Act *Enforcement by MOE and MNR*

In our 2001/2002 annual report, the ECO reported that enforcement of s. 36(3) of the *Fisheries Act* by the Ministries of the Environment and Natural Resources was sporadic and inconsistent. For our 2003/2004 annual report, the ECO requested that both MOE and MNR provide updates on enforcement of this Act and on the work of the Fish Habitat Advisory Group (FHAG) in revising its Fish Habitat Compliance Protocol, first published in late 1999. The group consists of representatives from MOE, MNR, OMAF, Environment Canada, the federal Department of Fisheries and Oceans (DFO), Parks Canada, the Coast Guard and Conservation Authorities.

Both MOE and MNR reported that the FHAG met on a regular basis during the reporting period to discuss revisions to the compliance protocol. In February 2004, MNR and MOE staff advised the ECO that beginning in April 2004, the FHAG would be piloting a revised and interim Fish Habitat Compliance Protocol. MNR staff told ECO staff they expect to post the revised protocol on the Registry once the pilot phase is completed in December 2004.

The ECO also asked MOE to advise the ECO on any assistance in gathering evidence it might have provided to Environment Canada related to possible contraventions of s. 36(3) in the past reporting year that involved chemical discharges, consistent with the ministry's July 2002 commitment to the ECO that it would provide this type of assistance when it was deemed appropriate. MOE stated in July 2004 that it had assisted Environment Canada in two water quality investigations related to the alleged contraventions of the *Fisheries Act* in 2003/2004. However, the ECO remains concerned that this type of inter-agency cooperation did not happen very often, and that chemical discharges that contravene the Act are continuing. MOE did report that there had been a significant increase in prosecutions under the *Ontario Water Resources Act* in calendar year 2003 compared to previous years.

In contrast to MOE, MNR commenced 22 prosecutions under s.36(3) of the *Fisheries Act* related to discharges of silt and sediment between April 1, 2003, and March 31, 2004. Twelve convictions were obtained, and 10 of these charges were still before the courts as of July 2004. All of the charges were laid prior to November 2003.

Managing Cormorants

In our 2002/2003 annual report, the ECO reported that MNR had commenced its five-year Double-crested Cormorant Research and Monitoring Program to determine the effects of cormorants on resources such as fish populations and habitat. MNR reports that in the spring of 2002 and 2003, cormorant eggs were oiled at a number of locations on Lake Huron and bird numbers and fish stocks were monitored. MNR also reports that "recent estimates of fish consumption by cormorants on both Lake Ontario and Lake Huron suggest cormorants are consuming substantial amounts of fish and that there may be local impacts on fish stocks. These are preliminary estimates that have not yet been through formal peer review."

In March 2004, MNR posted on the Registry a proposed amendment to the Management Strategy for Double-crested Cormorants at Presqu'ile Provincial Park. This amendment proposes to add shooting breeding adult birds as a means to reduce the overall cormorant numbers on the park's islands. The ECO will monitor the outcome of public input on this controversial proposal.

Northern Boreal Initiative

Last year the ECO recommended that MNR conduct gap analyses and develop objectives and targets in order to establish a protected areas network for the Northern Boreal Initiative area as a whole. The ministry did not agree with the ECO, and responded that it was sticking to its plan to identify protected areas through the community-based land use planning process. MNR said that it would ensure that Ontario's parks targets for ecological regions and districts are met.

The ECO also recommended MNR carry out an assessment of forest management approaches ecologically suited to the northern boreal and make the research results available to the public. MNR responded that some information already collected has been shared with First Nations engaged in land use planning and with stakeholder groups involved in discussions related to the identification of protected areas. MNR described other types of information that will be generated and acknowledged that additional field work, data management and analysis are required. The ministry added that "when environmental assessment for forest management is addressed, results of that analysis and assessment will be shared."

Aggregates

The ECO asked for an update on MNR's proactive enforcement approach to encourage rehabilitation of aggregate pits and quarries (see page 204 of the ECO's 2002/2003 annual report).

MNR responded that all licensees were notified in May 2002 that those who fail to progressively rehabilitate their licensed site can expect MNR to obtain compliance through the use of subsection 48(2) of the *Aggregate Resources Act*. This section enables the minister to order the licensee to perform, within a specified time period, such progressive rehabilitation as the minister considers necessary. MNR field staff have also been directed to issue a subsection 48(2) – rehabilitation Order, where necessary, to obtain compliance with the site plan. MNR notes that these messages have also been conveyed to MNR staff and to the aggregate industry during the compliance assessment report training sessions that were held in 2002 and 2003. MNR is also undertaking an *EBR* review related to aggregate rehabilitation issues, with a projected completion date of July 2004.

The ECO asked whether MNR was preparing an update to the ministry's 1992 State of the Resource study on the status of aggregate resources in Ontario. MNR responded that the ministry recognizes the need to update some aspects of this study in order to understand better the current availability of the resource, alternative sources, delivery infrastructure, and implications of environmental and legislative constraints on the ability to develop the resource. However, MNR then noted that in 1997, through a partnership arrangement, The Ontario Aggregate Resources Corporation (TOARC) assumed responsibility for conducting research on aggregate resources management. MNR will discuss the possibility of updating the study with the board of directors of TOARC.

Lake Trout

The ECO reported its concerns about management of lake trout and lake trout lakes in our 2001/2002 annual report. Recently MNR reported that a pilot State of the Resource monitoring program had been successfully completed and that it is evolving into a proposal for a provincial-level monitoring program. MNR had promised that a discussion paper outlining options for such a program would be available by August 2003, but the ECO is not aware that this has happened.

Some years ago, the province downloaded responsibility for planning for developments on lakeshores, including those on sensitive lake trout lakes. The technical capabilities of municipalities in this area are often limited. To assist them, MNR, MOE and MMAH have been working on a manual, Lakeshore Capacity Assessment – Protecting Water Quality in Inland Lakes. MOE recently advised the ECO that the manual has now been reviewed by NGOs and municipalities and that they intend to post it for public review on the Registry in 2004.

Legislative Framework for Protected Areas

The ECO's 2001/2002 annual report recommended that MNR create a new legislative framework for provincial parks and protected areas, including conservation reserves, with the mandate of conserving biodiversity. MNR accepts that a review of the legislation should occur. The new Premier also has committed to revising the legislation, but MNR staff indicate that the decision of when to proceed with the review has yet to be taken.

Oak Ridges Moraine Conservation Plan

The ECO asked MOE, MMAH, MNR and MTO for an update on the status of technical or other guidance documents developed under the Oak Ridges Moraine Conservation Plan (ORMCP). The ministries informed us that MNR has prepared eight technical papers that have been posted on the Registry for public comment. MOE is in the process of preparing nine technical guidance documents that are in various stages of approval for posting on the Registry for public comment.

MTO has a draft series of Environmental Quality Standards for provincial highways currently under review. Standards for regional and local roads as well as for planning, operations and maintenance will be done at a later date. The ECO reminds the ministries of our comments in the 2001/2002 annual report that since there were no mitigation measures nor criteria for interpreting the transportation provisions in the Plan, the ECO anticipates that new policies to clarify this point – demonstrating need for the project and keeping adverse effects on the ecological integrity of the area to a minimum – will be developed and shared with the public on the Registry for comment.

The ECO also asked the ministries for an update on our recommendation in the 2001/2002 annual report that MMAH, MNR and MOE begin planning and implementing the promised systems for monitoring and evaluating the ORM Conservation Plan. The ministries reported that an ORMCP Performance Indicators and Monitoring Inter-Ministry Working Group has been established with MMAH in partnership with MNR, MOE, OMAF and MTO to develop a monitoring strategy. MNR said it is developing performance indicators and baseline information to measure the effectiveness of the ORMCP as it relates to matters that fall within its mandate. The group is developing a terms of reference, workplan and a draft of the monitoring strategy. The ministries stated that once the monitoring strategy has been completed, the province intends to develop relationships with broader stakeholders to get input and partnerships for implementation.

Biodiversity Strategy

The ECO's 2001/2002 annual report recommended that MNR develop a provincial biodiversity strategy in consultation with affected ministries, municipalities and stakeholders. The ECO's 2002/2003 annual report also discussed the need for a biodiversity strategy and related sub-strategies to target specific issues.

MNR states that it is meeting the goals and objectives of the 1996 Canadian Biodiversity Strategy by regulating species at risk (see Update: Protecting the Wolves of Algonquin, pages 68-70), regulating new provincial parks and developing management plans (see Needed: Better Planning for Protected Areas, pages 41-47), and maintaining an ecological database through the operation of the Natural Heritage Information Centre. MNR has also recently taken some positive steps to deal with alien invasive species. Together with OMAF and Environment Canada, MNR hosted a consultation session to discuss proposed national and provincial strategies for addressing this growing threat to biodiversity.

While the ECO commends MNR for these initiatives, we believe that MNR should go beyond these and undertake a comprehensive assessment of its policies, regulations and Acts, enacting appropriate changes to conserve the province's biodiversity.

Clean Air Plan for Industry

The ECO asked for an update on MOE's progress in developing emission caps for nitrogen oxides and sulphur dioxide for Ontario's major industrial sectors, as recommended in the ECO's 2001/2002 annual report.

MOE noted that the ministry had proposed consultation on establishing limits on nitrogen oxides and sulphur dioxides and extending emissions trading to include major industrial sources under the Clean Air Plan for Industry (CAP), through a Registry proposal (PA01E0026) in October 2001. MOE has since met with a group of industry and NGO stakeholders on a number of occasions to discuss broad-based issues pertaining to developing limits. MOE has also met "one-on-one" with industry sub-sectors on numerous occasions to discuss technical details and has engaged consultants to undertake detailed technical evaluations of industry sub-sectors.

MOE described its Discussion Paper on Ontario's Clean Air Plan for Industry, which was posted on the Registry for public comment in December 2002 (PA02E0031). The Discussion Paper presented potential emissions reduction scenarios for each sub-sector, with associated preliminary cost estimates and some information on available control technologies. MOE has received 50 submissions on it, and has been evaluating the comments with a view towards setting NO_x and SO_2 emission limits, with emissions trading for the industrial sector.

Safe Drinking Water Act

The ECO requested an update from MOE on its work on proposals for regulations and policies being developed under the *Safe Drinking Water Act*. MOE reported on a number of regulatory and policy initiatives. One of its most important regulatory changes was passage of O. Reg. 170/03, the Drinking Water Systems Regulation (DWSR). (For a review of the DWSR, see pages 85-88 of this report.)

In June 2003 MOE posted on the Registry its Proposed Compliance and Enforcement Regulation under the *Safe Drinking Water Act*. The proposed regulation contains provisions on inspections of municipal drinking water systems and laboratories that test drinking water and permits any Ontario resident who believes the *SDWA*, or a regulation or instrument under the *SDWA*, has been contravened to submit an *EBR* application for investigation to MOE.

MOE also advised the ECO that as of March 2004, 54 water testing laboratories had been licensed by MOE and that each licensed lab will be subject to an annual unannounced inspection. In July 2003, MOE posted a proposed regulation on certification of drinking water system operators and requirements for re-certification of grandparented operators. This was finalized in the spring of 2004.

On January 28, 2004, six new MOHLTC and MOE proposals for protocols, guidelines and memoranda were posted on the Registry. These are intended to clarify the responsibilities of MOE and local boards of health concerning the notification and indicators of adverse drinking water quality, sampling and operating procedures and boil water advisories, and to ensure that MOHLTC standards and procedures correspond to the requirements outlined in the *SDWA* and the DWSR.

Drinking Water Source Protection

In several annual reports, the ECO has raised concerns about the lack of progress in developing new laws and policies on watershed protection and source protection of water supplies. On December 18, 2003, MOE announced a one-year immediate moratorium on new and expanded water-taking permits that remove water from watersheds. The Environment Minister also announced the Ontario government plans to charge fees to water-bottling companies and other permit holders that remove water from watersheds.

In February 2004, MOE posted a Registry notice for its White Paper on Watershed-based Source Protection Planning (PA04E0003). The paper details planning aspects of the proposed source protection legislation and a proposed approval process for source protection plans and outlines improvements to the Permit to Take Water Program. The ECO applauds these initiatives and will review progress in future annual reports.

MOE Sewage Treatment

The ECO asked for an update on MOE's policy review of sewage treatment plant (STP) effluent quality limits for ammonia and chlorine for existing and expanding facilities (see page 41 of the ECO's 2002/2003 annual report).

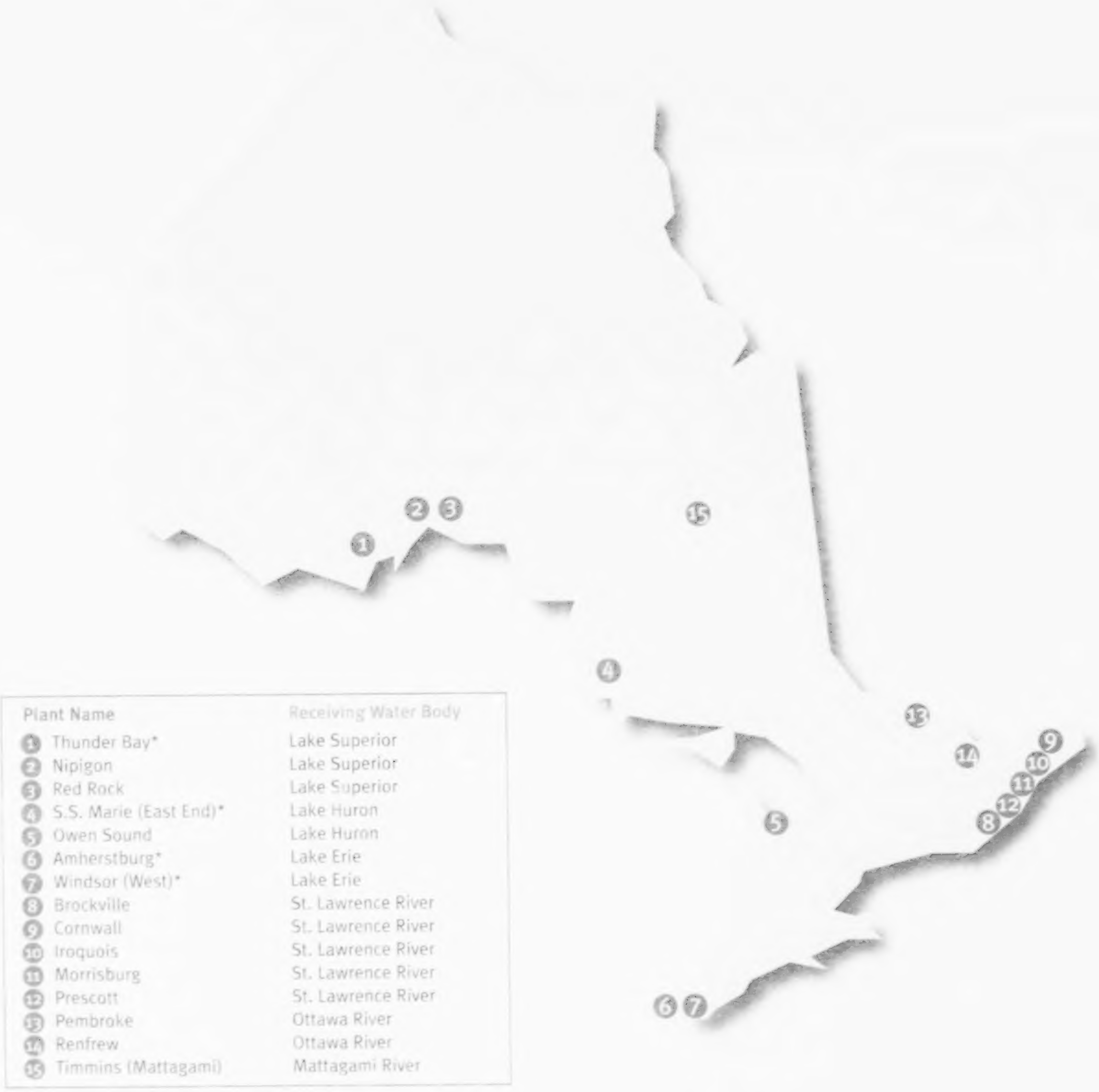
MOE responded that in November 2003, the Canadian Council of the Ministers of the Environment approved the development of a Canada-wide Strategy for the Management of Municipal Wastewater Effluent. This three-year project will involve extensive consultations with municipalities and non-government experts and will assess specific parameters/pollutants for control strategies and performance standards. Ontario's actions for ammonia, chloride and other substances will be guided by this process, as well as by the *Canadian Environmental Protection Act* proposed instrument for total reduced chlorine and ammonia, which is scheduled to take effect in December 2004.

MOE also noted that the government is committed under the 2002 Canada/Ontario Agreement Respecting the Great Lakes Ecosystem to prepare a management framework for STP discharges. The government has also agreed to implement all Justice O'Connor's recommendations from the Walkerton Inquiry, which include a recommendation to support major wastewater plant operators in collaborative studies aimed at identifying practical methods of reducing or removing heavy metals and priority organics (such as endocrine disruptors) that are not removed by conventional treatment.

MOE noted that it is developing a more effective framework for managing STPs that entails updated effluent standards and consistent monitoring and reporting requirements for all sewage treatment plants across the province, including the monitoring of bypasses and sewage overflows.

The ECO asked for an up-to-date list of the Ontario STPs that are still using only primary treatment. MOE responded in January 2004 with the information presented in the following map:

Sewage Treatment Plants in Ontario with Primary Treatment Only



Plant Name	Receiving Water Body
① Thunder Bay*	Lake Superior
② Nipigon	Lake Superior
③ Red Rock	Lake Superior
④ S.S. Marie (East End)*	Lake Huron
⑤ Owen Sound	Lake Huron
⑥ Amherstburg*	Lake Erie
⑦ Windsor (West)*	Lake Erie
⑧ Brockville	St. Lawrence River
⑨ Cornwall	St. Lawrence River
⑩ Iroquois	St. Lawrence River
⑪ Morrisburg	St. Lawrence River
⑫ Prescott	St. Lawrence River
⑬ Pembroke	Ottawa River
⑭ Renfrew	Ottawa River
⑮ Timmins (Mattagami)	Mattagami River

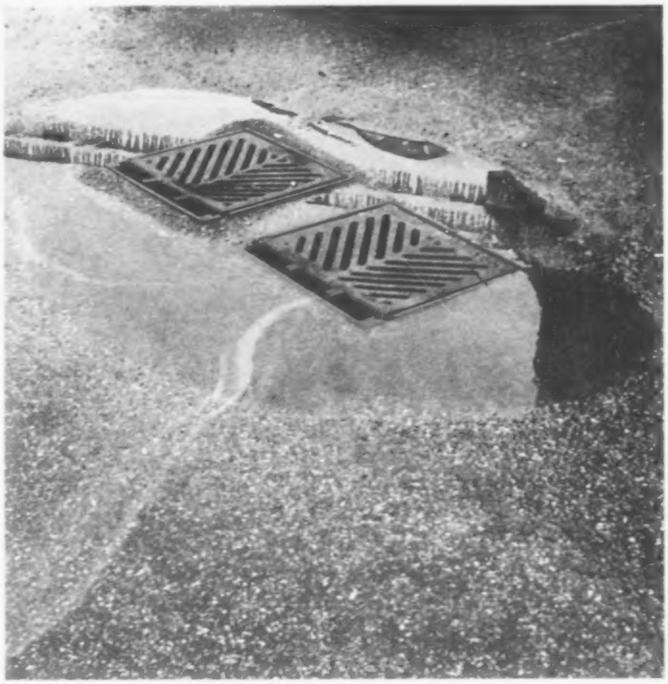
*Upgrades are in development for four facilities:
Thunder Bay's plant is in the construction phase; Windsor's (West) plant is in the design phase, with $19 million provincial funds and $9 million federal funds earmarked for the upgrade; Sault Ste. Marie's plant is in the design phase; Amherstburg's plant is in the planning phase.

The ECO also asked about MOE's progress in compiling an up-to-date overview of the condition and performance of Ontario STPs, and whether this report would be published. MOE had previously informed the ECO that such a report was planned for completion by the end of 2003. MOE did not respond to this question, but noted that monitoring and public reporting aspects will be examined as part of the current review of municipal STPs. The ministry also described the type of information that is currently available to the public: MOE posts, on a public Internet site, summary information on those STPs in non-compliance with MOE regulations and legal instruments, as well as those in non-conformance with ministry policies and guidelines for wastewater discharges. MOE suggested that the public could use this information to ask questions and demand better performance from municipalities responsible for those plants.

Sustainable Water and Sewage Systems

The ECO requested an update on MOE's progress in developing regulations under the *Sustainable Water and Sewage Systems Act (SWSSA)*. The *SWSSA* cannot be proclaimed until supporting regulations under the Act have been developed and approved. The ECO's 2002/2003 annual report encouraged MOE to consult broadly on these regulations.

In March 2004, MOE informed the ECO that it is continuing to work with MMAH, the Ministry of Public Infrastructure Renewal, and the Ministry of Finance on a process to support the development of the regulations. MOE noted that because of the range of technical content issues, regulation development will focus on identifying appropriate methodologies, formulae, instructions and formats for the Municipal Full Cost Reports and Cost Recovery Plans required under the Act. MOE did not provide any proposed timeframe for the development of these regulations.



Updates to Certificates of Approval

The ECO asked about progress on MOE's three-point strategy for updating certificates of approval (Cs of A): How many existing Cs of A have been evaluated for possible updating? How many updates have been initiated? How many updates have been completed? To what extent is the Environmental Registry being used for public consultation on changes to such Cs of A?

MOE responded that the three-point project consists of:

- development of Protocols for updating Cs of A
- a Field Directed Alert Program
- a Risk-Based Pilot Project.

MOE posted a proposal on the Registry in May 2002 (PA02E0007) outlining Protocols for updating four kinds of Cs of A: Sewage Works, Water Works, Air Emissions and Waste Management. Protocols that target water, sewage, air, and waste management Cs of A were drafted and were in use by early 2002. MOE states that final versions of the Protocols have been completed and will be posted on the Environmental Registry by summer 2004. Using the protocols, the ministry regularly updates Cs of A, and has updated approximately 4,960 Cs of A since 2000. MOE did not indicate how many of those updates were posted on the Registry for public comment.

The Field Alert program was implemented province-wide in September 2002 and is fully operational.

MOE noted that the Risk-Based Pilot Project proactively identified hazardous waste transfer/processing facilities, landfill sites, municipal sewage treatment facilities and industrial air emitters that were considered most apt to pollute and the most environmentally significant. The process for updating these facilities has been initiated: 39 facilities have been assessed and outreach activities targeting 122 of the identified air emissions facilities have been completed. Again, MOE did not indicate how many of these Cs of A will be posted on the Registry for public comment.

MOE is now evaluating the work that has been done to date and determining the most efficient and effective next steps to continue updating Cs of A.

In addition to routine updating of Cs of A using this three-point strategy, ministry staff also review and update Cs of A, where required, as part of ongoing inspection activity such as the work currently being undertaken by the ministry's environmental SWAT team in Sarnia. As part of its efforts to protect the St. Clair River, the SWAT team will be reviewing the Cs of A for the facilities inspected throughout the inspection sweep. This review will provide important feedback to the ministry and the industry on best practices, gaps, trends and issues that will enhance the environmental approvals process.

New Rules for Managing Biomedical Waste

In previous annual reports, the ECO highlighted the emission problems associated with hospital-based incinerators. In response, MOE reported that as of December 6, 2003, all existing hospital incinerators in Ontario had ceased operation in accordance with O. Reg. 323/02. MOE staff have contacted all of the hospitals to ensure that they are in compliance with Ontario Regulation 323/02. And the ministry has developed a compliance assurance inspection program that will confirm compliance with amended Regulation 347.

Managing Ozone-Depleting Substances (ODS)

In the 2001/2002 annual report, the ECO reported that MOE had banned certain types of refrigerants using chlorofluorocarbons (CFC) and raised questions about the fate of surplus stocks. MOE reported that as of February 2004, Refrigerants Management Canada (RMC), an industry-based organization, had accepted and processed a total of 107 tonnes of surplus refrigerants from across Canada. Using assessments by RMC, MOE estimates that 324 tonnes of CFC-based refrigerant are still in use in commercial establishments in Ontario and approximately 1,700 tonnes in use in industrial chillers across Ontario. For disposal, the Swan Hills Special Waste Treatment Facility in Alberta has been used for 13 tonnes accounted for by RMC. RMC has recently finalized a disposal contract with RemTec/Onyx in Texas for the destruction of the remaining surplus ODS.

Air Emissions Reporting

The ECO asked MOE for a final tally of the 2002 annual reports of air emissions submitted under O.Reg 127/01, and a breakdown of the number of annual reports from class "C" facilities – smaller sources such as auto body shops and food manufacturers. MOE responded that as of January 1, 2004, approximately 3,900 facilities had submitted their annual reports for the 2002 reporting year to the ministry. Approximately 45 per cent of these facilities are classified as class "C" facilities. This is the first year that the regulation applied to all large and small sources.

Canada-Ontario Agreement Respecting the Great Lakes

MOE reports that as of March 2004, further progress has been made under the Canada-Ontario Agreement, including the establishment of a Lake Huron Bi-national Partnership Initiative and a Great Lakes Human Health Network; the creation of a forum for stakeholder input; and the development of a federal-provincial multi-year work planning process. MOE reports that in the remaining two years of the five-year Agreement, a second Area of Concern may be de-listed, subject to federal/provincial cooperation and resourcing. The ministry states that rehabilitation of ecological systems in all Areas of Concern will move forward; reductions in PCBs, mercury and dioxins/furans will be achieved and progress will be made on other persistent toxic substances; and a framework for information management and data-sharing will be implemented. The ECO's 2002/2003 annual report recommended that the provincial government ensure that sufficient funds are available to achieve the results defined in the Annexes to the 2002 Canada-Ontario Agreement Respecting the Great Lakes. MOE advised that during the first three years of the agreement, $18.5 million of the originally promised $50 million had been expended or committed.

Greening Initiatives – Management Board Secretariat

The ECO reported in 2002/2003 that MBS was developing energy conservation initiatives and recommended that the ministry and others involved take full advantage of the Registry in developing these initiatives. The ECO asked for an update and was provided a detailed account by MBS.

The Ontario Realty Corporation (ORC), which manages and operates government buildings on behalf of MBS, reported that it had reduced electricity consumption across these buildings by 10 per cent over the period April 2000 to March 2003.

In 2003/2004 ORC undertook 56 energy reduction projects, totaling $13.2 million. These involved replacing fans and upgrading controls. ORC expects to invest at least $17 million in energy improvement projects in 2004/2005, including plans for the elimination of chlorofluorocarbons (a refrigerant with ozone-depleting properties). Some of these projects are based on 35 detailed energy audits that ORC had previously undertaken to help guide capital plans over the next three years.

The fall 2003 government commitment to reduce electricity usage in government operations by 10 per cent will be measured against that of the 2002/2003 fiscal year for MBS/ORC.

The ECO is aware of missed opportunities for energy consumption savings in existing ORC properties and in new facilities under development, such as hospitals where front-end planning is not building in new energy efficiency standards such as LEED (Leadership in Energy and Environmental Design). Construction under LEED's Green Building Certification can result in energy performance of at least 25 per cent better than the National Energy Code.

Renewable Portfolio Standard – Ministry of Energy

The ECO reported in 2002/2003 that ENG had announced plans to develop a renewable portfolio standard and recommended that the ministry take full advantage of the Registry in developing such initiatives. The ECO asked for an update and was provided the following account by ENG: The ministry said that a new vision will be proposed for the electricity sector, which would be implemented in legislation, and that the government is committed to promoting the development of new renewable sources of electricity generation. The government has established a goal that 5 per cent of Ontario's electricity capacity be derived from new renewable sources by 2007, rising to 10 per cent by 2010. ENG is developing policies on how to implement a Renewable Portfolio Standard in Ontario. During this policy development period, the ministry has consulted with representatives of renewable energy developers and First Nations representatives.

Provincial Policy Statement

The ECO asked MMAH for an update on the status of the review of the Provincial Policy Statement (PPS) initiated in May 2001. MMAH responded that the government is analysing the information obtained from the PPS review in conjunction with the proposed *Strong Communities (Planning Amendment) Act* initiative. MMAH said that public consultation on the proposed Act and additional consultation on the PPS will be announced shortly.

Nutrient Management Act, 2002

In November 2003, the government announced that the Minister of the Environment was designated as the minister responsible for the *Nutrient Management Act, 2002*. The Ontario Ministry of Agriculture and Food is responsible for technical assistance, training and certification, and approvals.

Cataraqui Region Conservation Authority Land Disposition

In 2002/2003, the ECO recommended that MNR and MOE revisit their interpretation of the "retirement" provision in Regulation 334 under the *Environmental Assessment Act (EAA)*, and that MNR post future proposals concerning the disposition of Conservation Authority land as regular Registry policy proposal notices. (See the 2002/2003 ECO annual report, page 10, for the ECO's interpretation.) In November 2003, MNR informed the ECO that it maintained the opinion that the undertaking of the acquisition, operation and disposition of conservation lands is exempt from *EAA* requirements due to Reg. 334.

Since July 2003, MNR has posted four information notices requesting comments in relation to the disposition of Conservation Authority lands. Although MNR provides a comment period with these information notices, it is not required to consider them under the *EBR*, and the ECO does not have access to copies of the comments in reviewing MNR's decisions. The ECO maintains the position that dispositions of Conservation Authority lands are not exempt from the *EAA* under Reg. 334, and should be posted as regular Registry notices under the *EBR*.

Dead Animal Disposal

The ECO reviewed developing problems associated with deadstock disposal in Ontario in our 2002/2003 annual report, and made two recommendations.

The first recommendation was that the Ministry of Agriculture and Food develop funding programs and alternative approaches to ensure proper disposal of deadstock. OMAF reports that it extended its funding for the Livestock Mortality Recycling Project under the Healthy Futures Program for Ontario Agriculture until March 2004. The ECO will continue to monitor this potential risk to surface and groundwater quality.

Second, the ECO recommended that OMAF and MNR develop regulatory mechanisms to ensure that chronic wasting disease (CWD) is not spread among farmed or wild elk, deer or other alternative livestock. OMAF and MNR are participating in a provincial task force that is developing an Ontario CWD plan that considers risks to free ranging and farmed alternative livestock, and OMAF has provided funding to establish and maintain diagnostic services for Transmissible Spongiform Encephalopathies at its Animal Health Laboratories in Guelph. These facilities are available for assessment of CWD in deer samples collected through MNR programs carried out through the previous two deer hunting seasons.

Beyond the Recommendations

Development Permit System

The ECO reviewed MMAH's Development Permit System (DPS) pilot project in the Supplement to the 2001/2002 annual report. The DPS is a planning tool that is proposed to streamline three existing approval systems under the *Planning Act* – zoning, site plan control and minor variance – into one process.

In January 2004, the ECO contacted MMAH for an update on the DPS project. MMAH responded that although a regulation under the *Planning Act* permits the DPS to be used in five pilot municipalities, none of the pilots is operational at this time. A proposal was posted on the Registry in July 2003 to expand the boundary for the project in one of the pilot municipalities (Oakville), but a decision on this proposal was delayed by the provincial election.

ORC – Class EA Renewal

A process to renew the MBS Class EA for Realty Activities was launched in 1999 and continued during this reporting year. MBS reported that public consultation has now concluded and that a revised document has been submitted to MOE. MOE reported that the review process is on schedule for the revised Class EA to come into effect on May 1, 2004. *(For mininstry comments, see page 206.)*

Ministry Cooperation

The Environmental Commissioner of Ontario and staff rely upon cooperation from Ontario's provincial ministries to carry out the mandate of the ECO. We are in frequent contact with staff from the prescribed ministries with requests for information. Clear, prompt responses from ministries allow the ECO to conduct reviews of the ministries' environmentally significant decisions in an efficient and straightforward manner. Section 58 of the *Environmental Bill of Rights* requires the ECO to include in our annual report to the Ontario Legislature a statement on whether or not prescribed ministries have cooperated on requests by the ECO for information.

Staff at the prescribed ministries are generally cooperative in providing information when it is requested. The 14 prescribed ministries and two agencies (the Technical Standards and Safety Authority and the Ontario Realty Corporation) each have one staff person who is designated as an *EBR* coordinator or contact. Most of the day-to-day interaction between the ECO and the ministries occurs via these coordinators, which are key positions with respect to effective *EBR* implementation. Among other things, these individuals are responsible for coordinating the ECO's access to documents needed for reviewing ministry decisions posted on the Registry. For the *EBR* coordinators at MOE and MNR, this can be a significant workload, and the ECO is pleased to observe that these documents are usually provided promptly. The ECO also directly contacts ministry staff responsible for program delivery with specific detailed information requests related to ministry programs.

The ECO makes monthly requests for information to the Ministry of the Environment's *EBR* Office (EBRO) and to the *EBR* coordinators of other ministries when Registry decisions are posted. In 2003/2004, the *EBR* coordinators of the various prescribed ministries were consistently cooperative, and responses to the ECO requests were generally thorough and informative. For example, in April 2004, the ECO sought background information about a standard for the chlorination of water wells that MOE revised in 2003 (see the Supplement to this report, pages 223-233). The ECO sought only one or two references, but MOE promptly supplied an extensive list of references and background on the topic. The ECO appreciates this level of cooperation from ministry staff.

The Ministry of Energy could be more prompt with and considerate of their *EBR* obligations. The ECO found it necessary to contact the ministry to ensure that Bill 4, *Ontario Energy Board Amendment Act (Electricity Pricing), 2003* was posted as a proposal on the Environmental Registry in December 2003. The bill received Royal Assent in December 2003, before the end of the Registry comment period. ENG should have promptly updated the Registry notice to advise the public that a decision was made to proceed with the legislation. The ECO subsequently contacted the ministry to request that ENG post a decision notice for Bill 4. While initially committing to the end of February 2004 for posting the decision on the Registry, ENG did not post it until early April 2004.

The ECO's ongoing work on ministry compliance with the *EBR* often raises issues related to ministry cooperation. Under the rubric of the ECO's unposted decision project (see pages 21-24 of this report), we may send formal written inquiries requesting information on how a ministry determined the environmental significance of a proposal and whether it considered its Statement of Environmental Values. Responses from the Ministry of Natural Resources to the ECO on such requests for information have generally been prompt. However, on one occasion the ECO experienced a delay of about two months waiting for an answer to a question about planning on conservation reserves.

The ECO has sent numerous communications to MNR during the year concerning potential unposted decisions, and these have been generally addressed in a timely and complete manner. The ECO has also contacted the Ministry of Environment and Ministry of Health and Long Term Care over potential unposted decisions this year, and in both cases, responses have been prompt.

Each year the ECO corresponds with the prescribed ministries to request updates on issues discussed in our previous annual reports. In general ministries are cooperative in providing these updates, and in several cases, their responses go beyond the issues, providing the ECO with information on additional initiatives and new directions. The ECO appreciates the efforts of ministry staff who provide this additional input.

The ECO Recognition Award

Every year, the Environmental Commissioner of Ontario recognizes formally those ministry programs and projects that best meet the goals of the *Environmental Bill of Rights* or are considered best internal *EBR* practices. The ECO asks the ministries prescribed under the *EBR* to submit programs and projects that met either of these criteria. This past year, four ministries responded to our request, with a total of seven projects for the ECO to consider. The submissions varied considerably in their scope and content, which made comparing them a challenge. An arm's-length panel reviewed a short list of the submissions and provided advice on the selections for our 2003/2004 ECO Recognition Award.

Of the many worthwhile projects submitted to the ECO this year, two have been singled out as particularly noteworthy. The following runner-up project deserves honourable mention.

The ECO recognizes the Ministry of Natural Resources for its work on the Lake Nipigon Basin Signature Site – Ecological Land Use and Resource Management Strategy, which significantly expanded the protection of one of nine featured sites under Ontario's Living Legacy. The Strategy was the result of extensive consultation with the public, the forest industry, Ontario Federation of Anglers and Hunters, tourism groups, the Aboriginal community, and others, and brought together 17 different land use designations into a single planning framework. The Strategy protects, enhances and, where necessary, restores the natural ecosystems and populations of the Lake Nipigon Basin – home to a number of rare plant species, the threatened woodland caribou and the endangered white pelican and peregrine falcon. At the same time, the Strategy allows tourism, and recreational and industrial development in a manner that protects the Basin's ecological values.

The recipient of this year's Recognition Award is the Ministry of the Environment. The ECO is pleased to recognize MOE officials and staff who work on the province's ambient environmental monitoring networks that collect, analyze and report on data on the province's air, surface water, and groundwater. In the last few years, MOE has established the Ontario benthos biomonitoring network, which focuses on the condition of biological communities in the aquatic ecosystem. Other monitoring programs managed by MOE include sport fish contaminant monitoring, the Lake Partners Program, which assesses the nutrient status of 500 inland lakes, and the Great Lakes Survey, which provides comprehensive monitoring of the Great Lakes on a lake-by-lake basis over time. The data collected from these networks and programs are then used to establish baselines and trends, identify sources of contamination, and support environmental decisions. In a number of cases, the data are also summarized and published as important public reports, such as the "Air Quality in Ontario" series or the "Guide to Eating Ontario Sport Fish." The data are valuable to the government, environmental groups, industry and the public.

Although work done by MOE officials and staff on the province's ambient environmental monitoring networks is often carried out behind the scenes, their efforts provide a vital foundation for environmental decision-making and a better-informed public.

PART 8:

Developing Issues

In the following pages, the Environmental Commissioner of Ontario draws attention to two issues that may have significant environmental impacts which are only beginning to be considered by governments. It would be prudent for the responsible ministries to begin to address these developing issues, articulate clear policy directions, and provide opportunities for meaningful public input. The first issue is the need for the Ontario government to develop a coherent program for product stewardship of the burgeoning quantities of electronic waste being produced by Ontario residents, institutions and businesses each year. The second issue, the global nitrogen cycle, reaffirms the ECO's view that ministries often neglect the ecological perspective in environmental management, focusing instead on short-term issues rather than the long-term viability of ecosystems. Growing evidence suggests that the long-term ecological consequences of increasing nitrogen pollution of our airsheds, lands and water will be very serious, and decision-makers need to respond with a holistic approach.

Diverting Electronic Waste – An Emerging Waste Management Challenge

Ontario has one of the most technically advanced populations in the world, and many Ontarians now regard personal computers and cell phones as must-haves and essential tools for communication and leisure. Over 50 per cent of Canadian households owned a computer in 2002 and many households owned multiple electronic products, such as televisions, VCRs and phones. However, the popularity of electronic products also means that ever-increasing amounts are coming up for disposal or for reuse or recycling. The information age has introduced a new waste management challenge – electronic waste (e-waste).

Canadians threw out an estimated 74,000 tonnes of computer waste in 2002, including 1.7 million desktop computers, 1.9 million cell phones, 84,000 tonnes of selected household electrical and electronic products, as well as two million television sets and 1.1 million VCRs. By 2008, the amount of electrical and electronic waste is expected to increase by 34 per cent, despite evidence that computers are now being kept for four to five years, up from three and a half years in 1997.

Electronic products are made up of many materials:

- Various types of plastic are found in numerous components. A desktop computer may contain over five kilograms of plastic, of which approximately 26 per cent is polyvinyl chloride.
- Cathode ray tubes found in desktop computer monitors and televisions may contain up to three kilograms of lead.
- Mercury can be found in switches, batteries and fluorescent lamps. A laptop display screen may contain up to 50 milligrams of mercury.
- Cadmium, brominated flame retardants, hexavalent chromium, copper, beryllium, gold, silver, iron, arsenic and numerous other materials may also be present.

Recycling and recovery of electronic products is a multi-step process. They are often disassembled first to retrieve reusable or saleable parts and to remove mercury-containing and other parts that pose a safety hazard. The remaining e-waste is shredded into small pieces, sorted according to material type such as metals, glass, and plastics, and then sent to material-specific processes for further recovery. Metals such as copper are sent to smelters for recovery. Plastics and other material types are recycled according to availability of markets.

Environmental considerations

Currently, many Ontarians are storing their discarded electronic products, and others are taking them to municipal Environment Days and central depots. In addition, various charities and other organizations collect and market electronic products. However, a significant amount of e-waste is being landfilled and some may even be incinerated, with the result that substances that can harm the environment and humans are being released to our air, land and water.

E-waste that is landfilled is crushed, exposing its component parts to the acidic conditions commonly found in a landfill. Brominated flame retardants and heavy metals can leach into the soil and water, potentially contaminating drinking water supplies and harming plant and animal life. The U.S. Environmental Protection Agency reported that 70 per cent of the heavy metals found in U.S. landfills came from discarded electronic products. Environment Canada estimated that used electronic and electrical equipment – such as small kitchen and household appliances – represented about 1.23 per cent of the disposed residential waste stream in Canada in 2002.

Incineration of e-waste releases dioxins and furans from brominated flame retardants and polyvinyl plastic into the atmosphere, and concentrates metals such as chromium, copper, cadmium and mercury that are hazardous to the environment. Although incineration of municipal solid waste is allowed in Ontario, it has been the subject of much concern and is banned as a diversion option for waste diversion programs developed under the new *Waste Diversion Act* (see pages 78-85).

Programs that promote the reuse of discarded electronic products and recovery of re-usable parts, particularly computer chips, can provide significant savings in terms of energy and materials. A recent study has estimated that 1,600 grams of fossil fuel and chemicals are required to manufacture one new 2-gram computer chip – the kind of chip commonly found in personal computers and cell phones. In addition, about 1 600 litres of water purified to parts in a billion may be used during the manufacturing process, since one bacterium can short out a chip. Furthermore, it has been estimated that 300 megawatt-hours of electricity are required to produce one tonne of new computer chips.

However, recycling of e-waste also poses risks to the environment. Parts containing mercury must be handled appropriately to prevent its release into the environment, and shredding operations can create large quantities of dust containing metals that can then be deposited on land or water.

Is e-waste hazardous?

Several years ago the University of Florida exposed lead glass found in cathode ray tubes to the conditions found in a landfill and concluded that lead leached in amounts that exceeded the U.S. Environmental Protection Agency threshold for hazardous waste. Further studies concluded that cell phones, printers, flat-panel monitors, keyboards, computer mice, remote controls, VCRs, laptops and central processing units also leached lead in hazardous amounts.

In June 2002, the U.S. Environmental Protection Agency proposed that cathode ray tubes and mercury-containing electric equipment be considered hazardous waste, which would make them subject to stringent management processes. Although this proposal has not been finalized, other jurisdictions are considering similar measures; California recently classified liquid crystal display monitors and laptop computers as hazardous.

Diversion of E-waste – Around the World

2000 – China bans the import of some types of e-waste.

2000 – California and Massachusetts ban cathode ray tubes from landfill sites.

2001 – Japan implements a take-back system requiring manufacturers to establish recycling programs for televisions.

2002 – Japan charges a front-end recycling fee on the sale of new computers.

2003 – Maine and Minnesota ban cathode ray tubes from landfill sites.

2003 – California passes the *Electronics Waste Recycling Act, 2003*, which establishes a recovery program for cathode ray tubes.

2004 – California begins to charge a recycling fee of $6 to $10 on some new electronic products.

2005 – The European Union is planning to require manufacturers to finance and manage e-waste.

2006 – The European Union is planning to ban the sale of new electrical and electronic equipment containing more than agreed levels of lead, cadmium, mercury, hexavalent chromium, and certain types of flame retardants. North American computer companies will be required to comply with this directive if they wish to sell to European Union members.

2008 – California is planning to ban the sale of electronic products that don't meet European Union requirements.

E-waste diversion initiatives in Canada and Ontario

Although the federal government lacks legal jurisdiction to legislate a national program, it has been studying the e-waste issue for several years and, working with the provinces, expects to release Canada-wide principles for handling e-waste in 2004 . In May 2004, Alberta became the first province to designate electronics as a material for which a recycling and management program will be established. Alberta has also established maximum advance disposal surcharges, ranging from $5 for a laptop to $45 for a large-screen television. Other provinces also have initiatives under way, and Ontario has indicated that it plans to designate electronics under the *Waste Diversion Act* in fall 2004.

In 2002, Waste Diversion Ontario reported that there were 49 municipal waste diversion programs in Ontario that collected one or more of the following electrical and electronic products: desktop and laptop computers, computer monitors, keyboards, mice, phones, televisions, audio/visual equipment and small appliances. Twenty-nine of the programs reported that they had collected a total of 775 tonnes of e-waste in 2002.

The electrical and electronics industry has also been active. Founded by 16 electronics companies in 2003, Electronics Product Stewardship Canada (EPS Canada) is developing a national program to manage e-waste. EPS Canada's proposal is based on the approach that:

- All provinces would agree to develop e-waste programs under the umbrella of EPS Canada's national program.
- All provinces would enact legislation to ensure a level-playing field and participation by all stakeholders.
- Retailers would charge an environmental handling fee whenever electronic products are purchased. The fees would cover the cost of managing e-waste.

EPS Canada is working with Alberta on its program and has been asked to provide input to Ontario's initiative.

Challenges of diverting e-waste from landfill sites and incinerators

Diversion initiatives face a number of technical, social, economic and legal issues.

Technical challenges

Although about 70 to 90 per cent of an electronic product by weight can be recycled, it may contain more than 1,000 materials – many of which are in very small quantities or in combination with others. Numerous processes are required to recover the different materials in a form pure enough to be accepted by markets. Since electronic products have not been designed in the past to facilitate disassembly, recovery of useable parts can be difficult and slow. Plastic parts pose several challenges, including:

- Several types of plastics may be used in combination, making them difficult to separate.
- Plastics that contain flame retardants may need to be separated from other plastics.
- Plastic parts are usually not labelled according to the type of plastic, making them difficult to sort.

In addition to the dangers of handling mercury, hard drives containing high levels of magnesium are of concern in some shredders due to the volatility of this mineral.

Recently, a number of electronics manufacturers have begun to re-design their products to use less lead, cadmium, mercury, hexavalent chromium, and certain types of flame retardants. However, new products continue to be introduced into the marketplace at an unprecedented rate. Telephones, which had a lifespan of decades, are being replaced by cell phones, which have an average lifespan of 2.5 years, according to one industry study. Diversion processes and technology must be able to adapt to this rapidly evolving environment.

Economic and social challenges

Markets for diverted e-waste are limited. As the price of new electronic products decreases in comparison to the cost of repair, the demand for reusable and refurbished parts decreases. In addition, when materials from obsolete or banned technology enter the waste stream, markets that support that technology no longer exist. For instance, the use of lead glass to manufacture new cathode ray tubes will disappear as flat screen display terminals become more popular.

Any diversion initiative is also dependent on the participation of householders. Initiatives that are expensive, confusing or inconvenient will not be widely accepted. Currently municipal e-waste programs vary across the province in terms of types of e-waste collected and the method and frequency of collection. Other non-governmental programs collect only specific products such as cell phones. Since participation by householders and industry is voluntary, there is no steady supply of e-waste and no consistent approach to collection on which recyclers can base their processes and business plans.

Legal and administrative challenges

Product stewardship programs, such as the one being proposed by EPS Canada, rely on industry taking responsibility for the waste associated with their products. However, 50 per cent of desktop computer sales are from small independent manufacturers and about half of the e-waste is from companies that are no longer in business. Currently, almost 20 per cent of computer sales are over the Internet, but this is expected to grow to 50 per cent by 2007. Industry is concerned about the possibility of taking responsibility for waste they did not produce. Furthermore, without a legal framework, participation by householders and all stakeholders cannot be assured.

E-waste as an emerging waste management challenge

Diverting e-waste from landfill and incineration will have significant environmental benefits. Non-renewable resources and hazardous materials that can contaminate air, land or water, such as mercury, lead and cadmium, can be recovered and reused. Moreover, some recovered computer parts can be reused without enormous expenditures in terms of energy and materials to manufacture new parts. The ECO is pleased that MOE has indicated that it intends to designate electronics as a waste under the *Waste Diversion Act* in fall 2004, but notes that a regulation may also be required to ensure that Ontario doesn't become the dumping ground for electronic products no longer allowed in other jurisdictions.

Altering the Nitrogen Cycle: Massive Human Intervention in Nature

Nitrogen is a key nutrient for plant growth, but to be useful to plants, it must occur in a form called "fixed nitrogen." Throughout most of history, fixed nitrogen has been in relatively scarce supply – the quantity limited, for the most part, by the rate at which certain types of algae and bacteria could fix it. However, because of human activities and technological developments, the pool of fixed nitrogen on the landscape has been rising rapidly over the last century. This trend has had major consequences for ecosystems, many of which are becoming more and more apparent.

Historically, fixed nitrogen has been scarce in nature despite the fact that the atmosphere is predominantly nitrogen gas. Nitrogen gas is N_2, which plants cannot use directly. Nitrogen bonded with oxygen to form nitrate (NO_3^-), or with hydrogen to form ammonium (NH_4^+), as well as smaller organic nitrogen molecules, are forms that plants can use and are called fixed nitrogen. The mechanism by which nitrogen moves between the atmosphere and the living world is termed the nitrogen cycle (see The Nitrogen Cycle as it Was, page 189).

In the first half of the 20th century, industrial methods of simulating what certain micro-organisms do – in this case, turning atmospheric nitrogen gas into fixed nitrogen – were developed. This led to the ability to make nitrogen-based fertilizers for plants, which had a dramatic effect on global food production. This agricultural practice was one of several modern developments that have led to an increase in the availability of nitrate and ammonium in the natural environment. When a synthetic fertilizer containing ammonium and nitrate is applied to crops, much of it may be taken up by the crops. But some of these nitrogen compounds may percolate into groundwater or run off into streams – mostly in the form of nitrate. Fixed nitrogen in fertilizers may also be converted by bacteria into nitrogen gas and released back to the atmosphere. Nitrogen also escapes from farm fields in the form of nitrous oxide (N_20), a greenhouse gas and ozone-depleting substance.

Livestock operations may also raise nitrogen levels in an area. The manure of farm animals like cows, pigs and sheep is rich in nitrogen compounds. When farm animals are relatively small in number and spread over a large pasture area, the nitrogen load tends to be relatively light and more or less balanced by bacterial processes and plant uptake. Synthetic fertilizers used to grow feed may allow more livestock to be raised in a given area, sometimes leading to higher nitrogen loads in that area. The traditional agricultural practice of planting leguminous crops, e.g., peas or beans, which support nitrogen-fixing bacteria has also greatly enriched the amount of nitrogen stored in the soils of agricultural areas.

Industrial and combustion processes fix nitrogen in a number of forms. When naturally occurring nitrogen gas from the atmosphere enters a high temperature combustion process, nitric oxide, NO, and nitrogen dioxide, NO_2, can be formed (taken together, NO and NO_2 are often referred to as nitrogen oxides or NO_x). In the atmosphere, NO_2 can be converted to NO under the influence of ultraviolet radiation leading to the production of ozone (O_3). Ozone can build up, but it can also convert NO back into NO_2. These reactions are a major element of photochemical smog. Nitrogen dioxide can also mix with water in the atmosphere to form nitric acid (HNO_3) and precipitate out as acid rain – often at great distances from the emission source. Major sources of NO_x include vehicle engines and fossil fuel burning for electricity or industrial applications.

Many of these activities have become widespread throughout the world, and some are so massive in scale that they are causing a noticeable increase in fixed nitrogen in the natural environment. Over the last 50 years, the increase has been substantial enough to lead researchers to believe that humans may be fundamentally altering the nitrogen cycle.

Evidence that human activities have radically altered the nitrogen cycle over the last century includes the fact that the amount of nitrogen available for uptake at any given time has more than doubled. While natural processes contribute about 140 million tonnes annually, human activities generate about 210 million tonnes of fixed nitrogen per year. This means that human activities now contribute more to the global supply of fixed nitrogen each year than do natural processes.

There are many consequences of releases of fixed nitrogen to the natural environment. Nitrogen-based emissions to air can lead to acid precipitation, smog, climate change and ozone depletion. On many land-based ecosystems, certain problems appear when vegetation can no longer respond to further inputs of nitrogen, a situation called *nitrogen saturation*. Consequences of excess nitrogen loadings can include habitat and species loss, shifts in species composition, and releases of fixed nitrogen to water, which can lead to the death of aquatic life. The scientific understanding of the negative consequences of nitrogen pollution has advanced to the point that scientists believe it is advancing the rate of extinction for certain plant species. A study of species diversity in grasslands in Britain found that species richness was significantly lower in areas of high nitrogen pollution. Furthermore, native plant species, and those adapted to low nitrogen conditions, were often found to fare less well than introduced species.

The Nitrogen Cycle as it Was...

Nitrogen is part of every living organism. In fact, after oxygen, carbon and hydrogen, it is the most abundant element in living organisms. But prior to the industrial age, nitrogen in a form useable by plants (fixed nitrogen) was in scarce supply in the natural environment. In fact, nitrogen was scarce enough to be considered a limiting plant nutrient – a nutrient that can limit the growth of plants by its lack of availability. Nitrogen was fixed only by natural processes, which supplied an amount less than could be taken up by all the plants in most environments, that is, there was no excess.

Sources of fixed nitrogen for plant use arose primarily from two natural phenomena – nitrogen-fixing micro-organisms and lightning. Nitrogen-fixing bacteria, such as ***Rhizobium***, are found on the root nodules of leguminous plants such as clover, alfalfa, and acacia trees. These organisms take nitrogen from the atmosphere and convert it to fixed forms of nitrogen. An arc of lightning can unite nitrogen gas (N_2) with oxygen to form nitrogen dioxide (NO_2), which reacts with rain water to form nitric acid (HNO_3). When this rain water reaches soil, nitrate (NO_3^-) may be liberated for plant uptake.

Additions of fixed nitrogen were small in comparison to the total amount already on the landscape that had been taken up by plants and animals. Living organisms are a major nitrogen reservoir in nature, as nitrogen is needed to make protein – an important component of cells in plants and animals. Because of this need, the size and number of higher animal life forms, e.g., mammals, were also limited historically by the availability of fixed nitrogen (since higher animals ultimately rely on the supply of nitrogen available from plant life). While in the cells of living organisms, nitrogen is effectively unavailable to support new plant life until an organism dies. When plants and animals die, bacteria and other organisms decompose this biological material. Some of these bacteria transform the nitrogen in the dead plant or animal material back into the ammonia form, (NH_3 and NH_4^+), of nitrogen which may then be converted by bacteria to nitrite (NO_2^-), then to nitrate(NO_3^-), which plants may use. Other bacteria transform some of this nitrate to nitrogen gas (N_2) and return it to the atmosphere, which makes it once again inaccessible to plants.

At any given time, the total amount of biologically active nitrogen in the biosphere was controlled by a series of processes that added nitrogen to the biosphere in a form useable by plants (e.g., NO_3^-, NH_4^+, amino acids, proteins), as well as other processes that returned it to the atmosphere as nitrogen gas (N_2).

Through these nitrogen-fixing and denitrifying processes and because of plant uptake, fixed nitrogen availability in the environment was scarce. This is a key characteristic of the nitrogen cycle – that only so much of the element in a biologically useable form is available at any given time and that the available fixed nitrogen is readily used by plants. Little excess ever exists. This was the case until the industrial revolution.

In Ontario, the impacts of nitrogen on the province's forests and waters are substantial and well documented. These impacts have been the focus of a number of programs and standards, recently established or revised, which attempt to limit the damage of nitrogen emissions to the natural environment.

Nitrogen's impact on aquatic ecosystems

In southwestern Ontario, surface water quality has become problematic because of run-off from farm fields, septic system discharge, effluent from sewage treatment plants and other problems that have arisen in the past few decades. In our 2001/2002 annual report, the ECO noted that nitrate concentrations appeared to be trending upward in surface waters in many of the river systems in agricultural areas of Ontario where sandy soils predominate. For example, the nitrate concentrations in the Middle Maitland River rose from below 1.0 mg/L in the 1970s to about 4.5 mg/L in 1994. Many forms of aquatic life are adversely affected by elevated nitrate levels. Population declines of frog and salamander species have been linked to rising nitrate levels in water, according to Environment Canada.

Nitrogen's impact on forests

The impacts of heavy nitrogen loadings on the forest landscape are becoming better understood. Nitrogen can have at least two major effects on forests. It can act as a nutrient that stimulates forest growth in those forest ecosystems where nitrogen used to be scarce. Some researchers speculate that this is having a major effect on the earth's carbon cycle by accelerating the withdrawal of carbon from the atmosphere. In regions where there is not enough carbonate rock to buffer the acidity from NO_x emissions, these emissions can lead to acidification of forest soils. In these areas, heavy nitrogen emissions can lead to forest dieback. Consequently, loadings of fixed nitrogen in Ontario can be a point of concern for certain forested areas if the forests have evolved in an environment of low fixed nitrogen availability or in soils with very little buffering capacity. The impacts of nitrogen loadings on forest ecosystems warrant continued monitoring and investigation.

Standards to manage nitrogen in water

Ontario has two sets of water standards, the Provincial Water Quality Objectives which apply to surface water, and the Ontario Drinking Water Standards, which apply to drinking water. The former are not enforceable, and even if they were, they have no objective for nitrogen in surface water. The latter has a standard of 10.0 mg/L nitrate-N; drinking water suppliers must comply with this standard and report non-compliance to the Ministry of the Environment. Nationally, a guideline of 3.0 mg/L nitrate-N has recently been established as a Canadian Water Quality Guideline (CWQG) for surface water. In 2003, Environment Canada added ammonia to the List of Toxic Substances regulated under the *Canadian Environmental Protection Act*. This could require many waste water treatment systems to reassess their ammonia controls. The new CWQG for nitrate draws attention to the impact of nitrate on aquatic ecosystems, but at present there is no mechanism by which this guideline would be enforced. The *Nutrient Management Act* and its requirement for plans for nutrient application (see pages 74-78) may begin to address the issue of nitrogen release to water from some non-point sources. But its initial impact will be modest.

Standards for airborne nitrogen emissions

Both federally and provincially, there have been initiatives ongoing over the past decade to control airborne emissions of nitrogen oxides (NO_x). Programs such as Ontario's Anti-Smog Action Plan and the bi-national Canada-US Ozone Annex have set broad targets to control NO_x emissions and have also worked out some of the details for emission reductions, generally established through negotiations with industrial sectors or individual companies. Emission limits based upon these agreements may then be incorporated into the certificates of approval or memoranda of understanding. As with emissions to water, reduction targets generally need to be incorporated into legal documents to allow enforceability. For an overview of some of these programs and initiatives, see Emissions Reduction Trading and NO_x and SO_2 Emission Limits for the Electricity Sector in the 2001/2002 ECO annual report and Update: Ontario's Anti-Smog Action Plan in our 2002/2003 annual report.

Conclusion

Despite existing programs and standard-setting processes, nitrogen's impacts on Ontario's ecosystems and landscapes appear to be growing, particularly those related to water quality. For this reason, MOE should adopt a provincial water quality objective following from the federal CWQG initiative on nitrate. Second, all agencies involved in nitrogen management need to adopt a more holistic view of the impact of nitrogen emissions on the global nitrogen cycle, not unlike the way we have come to think about carbon dioxide emissions and their resulting alteration of the earth's natural carbon cycle. *(For mininstry comments, see page 206.)*

Recommendation 14

The ECO recommends that MOE adopt a Provincial Water Quality Objective for nitrate consistent with the Canadian Water Quality Guideline for this substance.

PART 9:

Financial Statement

Office of the
Provincial Auditor
of Ontario

Bureau du
vérificateur provincial
de l'Ontario

Box 105, 15th Floor, 20 Dundas Street West, Toronto, Ontario M5G 2C2
B.P. 105, 15e étage, 20, rue Dundas ouest, Toronto (Ontario) M5G 2C2
(416) 327-2381 Fax: (416) 327-9862

Auditor's Report

To the Environmental Commissioner

I have audited the statement of expenditure of the Office of the Environmental Commissioner for the year ended March 31, 2004. This financial statement is the responsibility of that Office. My responsibility is to express an opinion on this financial statement based on my audit.

I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the financial statement is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statement. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In my opinion, this financial statement presents fairly, in all material respects, the expenditures of the Office of the Environmental Commissioner for the year ended March 31, 2004, in accordance with the accounting policies described in note 2 to the financial statement.

Peall

Toronto, Ontario
June 30, 2004

Gary R. Peall, CA
Acting Assistant Provincial Auditor

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

Statement of Expenditure
For the Year Ended March 31, 2004

	2004 $	2003 $
Salaries and wages	1,107,397	1,106,083
Employee benefits (Note 4)	187,479	180,251
Transportation and communication	90,268	97,490
Services	553,106	537,856
Supplies	88,864	60,460
	2,027,114	1,982,140

See accompanying notes to financial statement.

Approved

Environmental Commissioner

Public Sector Salary Disclosure Act

Office of the Environmental Commissioner

Employees paid $100,000 or more in 2003

Surname	Given	Position	Salary Paid	Taxable Benefits
McROBERT	DAVID	Sr Policy Analyst/Counsel	119,328.72	221.75
MILLER	GORDON	Commissioner	133,020.24	245.80

Prepared under the Public Sector Salary Disclosure Act

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

Notes to Financial Statement
March 31, 2004

1. BACKGROUND

The Office of the Environmental Commissioner commenced operation May 30, 1994. The Environmental Commissioner is an independent officer of the Legislative Assembly of Ontario, and promotes the values, goals and purposes of the *Environmental Bill of Rights, 1993 (EBR)* to improve the quality of Ontario's natural environment. The Environmental Commissioner also monitors and reports on the application of the *EBR*, participation in the *EBR*, and reviews government accountability for environmental decision making.

2. SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of Accounting

The Office follows the basis of accounting adopted for the Office of the Assembly and accordingly uses a modified cash basis of accounting which allows an additional 30 days to pay for expenditures incurred during the year just ended.

(b) Capital Assets

Capital assets are charged to expenditure in the year of acquisition.

3. EXPENDITURES

Expenditures are paid out of monies appropriated by the Legislative Assembly of Ontario.

Certain administrative services are provided by the Office of the Assembly without charge.

4. PENSION PLAN

The Office of the Environmental Commissioner provides pension benefits for its permanent employees (and to non-permanent employees who elect to participate) through participation in the Ontario Public Service Pension Plan (PSPF) which is a multiemployer plan established by the Province of Ontario. This plan is accounted for as a defined contribution plan as the Office has insufficient information to apply defined benefit plan accounting to this pension plan. The Office's contribution to the Plan during the year was $72,338 (2003 – $62,141) which is included in employee benefits.

The cost of post-retirement non-pension benefits were paid by Management Board Secretariat and are not included in the statement of expenditure.

5. LEASE

The Office has a lease agreement with its landlord for its current premises expiring on February 28, 2013. The lease payments for the remaining term of the lease are as follows:

	$
2005	133,859
2006	167,784
2007	184,009
2008	186,959
2009	219,409
2010	219,409
2011	219,409
2012	219,409
2013	201,125
	1,751,372

2003/2004 ECO Recommendations

Recommendation 1

The ECO recommends that prescribed ministries review, update and strengthen their Statements of Environmental Values as soon as possible.

Progress Report: Ministry Statements of Environmental Values, p. 8

Recommendation 2

The ECO recommends that MNR ensure the Managed Forest Tax Incentive Program does not provide a financial incentive to clear forested tracts of land in southern Ontario.

Southern Ontario's Forests: Problems on the Landscape? p. 29

Recommendation 3

The ECO recommends that MOE act on its existing policies to ensure that municipal sewer use bylaws are in effect, reflect current environmental standards and are enforced across Ontario.

Sewer Use Bylaws in Ontario, p. 35

Recommendation 4

The ECO recommends that MNR require the preparation and timely revision of management plans for all protected areas, including provisions for public consultation.

Needed: Better Planning for Protected Areas, p. 41

Recommendation 5

The ECO recommends that MOE ensure that public consultation practices under the *Environmental Assessment Act* are consistent with the minimum rights enshrined in the *Environmental Bill of Rights*, particularly with regard to permits, licenses and approvals.

EBR Rights Lost: Behind the Veil of Section 32, p. 52

Recommendation 6

The ECO recommends that MNR ensure that the aggregate industry operates in compliance with existing rules, and that the ministry demonstrate to the public that its compliance and enforcement programs for this industry are working effectively.

Update: MNR's Compliance Program for Sand and Gravel Operations, p. 62

Recommendation 7

The ECO recommends that MOE review the need to amend the *Environmental Assessment Act* to provide a two-year statute of limitations for prosecutions.

Who Enforces the Class EA? – The ORC Case, p. 70

Recommendation 8

The ECO recommends that OMAF and MOE work together to ensure that the *Nutrient Management Act* is prescribed under the *EBR* and that nutrient management plans and nutrient management strategies for large farms and biosolids are classified as instruments under the *EBR*.

The Nutrient Management Regulation, p. 74

Recommendation 9

The ECO recommends that MOE amend MNR's Declaration Order for Forest Management to provide an opportunity for public response to MNR's Five-Year Environmental Assessment Report and to incorporate a requirement that MOE approve the Report.

Environmental Assessment for Forest Management, p. 94

Recommendation 10

The ECO recommends that MNR revise the Old Growth Policy and Forest Management Planning Manual to incorporate forest management direction and requirements for conserving old growth forests.

The ECO recommends that MNR develop policies, plans and targets for conserving old growth forests in southern Ontario.

Forest Management Policy for Old Growth, p. 99

Recommendation 11

The ECO recommends that MOE ensure that key provisions of the Wells Regulation are clear and enforceable, and that the ministry provide a plain language guide to the regulation for well installers and other practitioners.

The Revised Water Wells Regulation, p. 110

Recommendation 12

The ECO recommends that MOE establish a comprehensive program to develop an understanding of the pathways, movement and fate of mercury in Ontario ecosystems.

Ecosystem Impacts of Mercury, p. 116

Recommendation 13

The ECO recommends that MOE address the difficulties faced by members of the public when trying to access relevant environmental assessment approval documents.

Highway Construction and Failings of the Environmental Assessment Process, p. 145

Recommendation 14

The ECO recommends that MOE adopt a Provincial Water Quality Objective for nitrate consistent with the Canadian Water Quality Guideline for this substance.

Altering the Nitrogen Cycle: Massive Human Intervention in Nature, p. 186

APPENDIX

Ministry Comments

Statements of Environmental Values (SEVs)

MOE: The Minister affirms the value and importance of SEVs. Initial work was undertaken across participating ministries to update SEVs and a project team is in place to move forward with reviewing and revising SEVs. It is important that SEVs be consistent with current government policy and direction, in particular its commitments to healthier Ontarians and stronger communities. Thus, MOE will ensure that updated SEVs are aligned with these government priorities and provide a useful tool for ministries and Ontarians. The ministry looks forward to working with the ECO to develop documents that not only reflect the most current mandates of prescribed ministries, but also support the government in achieving environmental commitments.

MBS: The ministry recognizes the importance of its SEV being up-to-date and reflecting how the ministry will apply the purposes of the *EBR*. MBS is reviewing its SEV as well as options for next steps.

OMAF: The ministry has recently updated its vision to explicitly include protection of the environment. The ministry expects to make this vision public before the release of the ECO report.

MNR: MNR continues to support the cross-ministry approach to revising prescribed ministries' SEVs.

Instruments – Approval for Sewage Works on the Groundhog River

MNR: Government approval of this project is consistent with policy and balances environmental, economic and social factors.

MOE: MOE and MNR reviewed potential impacts to the fishery and are satisfied the company has properly addressed concerns. MOE will ensure the company meets provincial standards for mining effluent discharges as required by regulation. The company must meet effluent limits for pH, heavy metals and suspended solids, and effluent must also be non-toxic to aquatic life.

Measures to prevent a negative impact on the environment are reflected in the conditions of the C of A for the sewage works. These conditions go beyond normal MOE requirements for mining effluent quality monitoring and standards. MOE believes there should not be a measurable environmental impact as a result of this activity, given the assimilative capacity of the Groundhog River.

Unposted Decisions

Electricity Conservation – ENG: In June 2004, the Ministry of Energy posted a proposal for Bill 100, *Electricity Restructuring Act* on the Registry for a 45-day comment period. The Bill, developed with input from numerous stakeholders, includes a number of conservation measures and will be subject to extensive public review.

West Nile Virus – MOHLTC: In July, 2004 the Ministry of Health and Long-Term Care posted an information notice on the Environmental Registry regarding the 2003 and 2004 West Nile Plans. The ministry intends to post the relevant sections of the West Nile Virus Plan for 2005 as a policy proposal on the Registry for public comment.

Species at Risk Guidance Documents – MNR: These internal administrative documents guide staff in the development of draft recovery strategies and proposals which would subsequently be posted on the Environmental Registry. MNR does not believe that these staff guidelines meet the definition of policy under the *EBR*.

Information Notices

Disposition of Conservation Authority Land – MNR: MNR continues in its view, in consultation with MOE, that the posting of information notices is the appropriate method of notice under the *EBR* for proposed approvals of disposition of CA land. These notices specify opportunities for public comment and MNR considers all received comments carefully.

Southern Ontario's Forests: Problems on the Landscape?

MNR: The goal of the previous Agreement Forest Program was successfully achieved. The lands were rehabilitated and managed over the 78 years of the program and are mature and ready to be managed by the owners, of which the large majority are public agencies such as Conservation Authorities and municipalities. MNR has undertaken an *EBR* review involving the Managed Forest Tax Incentive Program (MFTIP) in response to concerns raised by applicants. The Southcentral Region Forest Strategy is a guiding document for MNR staff. On its own, is not intended to resolve issues or revisit previous policy and program decisions.

Sewer Use Bylaws in Ontario

MOE: MOE recognizes the need for stronger sewage by-laws, and is dedicated to enhancing Ontario's municipal sewage treatment plant (STP) effluent requirements as part of its commitments under the Canada-Ontario Agreement Respecting the Great Lakes Ecosystem (COA). Presently, the ministry is conducting a multi-year comprehensive policy review regarding municipal sewage treatment plants. This review is looking into the update of requirements for effluent treatment, monitoring, reporting, and operating practices including sewer-use by-laws and best management practices. As part of the source protection initiative, MOE will review various instruments to protect water sources, including sewer use bylaws. On May 6, 2004, the Governments of Canada and Ontario announced increased funding for public infrastructure in small urban centers and rural municipalities. Both governments are committing $298 million over five years to infrastructure projects. With financial assistance through the Canada-Ontario Infrastructure Program, upgrades to municipal sewage plants and storm sewers are taking place throughout the Great Lakes area including: Thunder Bay, Sault Ste. Marie, Hamilton, Toronto, Windsor, Quinte, and Cornwall. Municipalities are responsible for the management of the municipal sewer pipes and their use. The Ministry's role is to work with municipalities and industries to provide guidance on how to manage the sewer use.

Needed: Better Planning for Protected Areas

MNR: Ontario's provincial parks and conservation reserves are not paper parks. They provide a high level of protection for biodiversity. They are not subject to commercial logging (with the recognized exception of portions of Algonquin Provincial Park), mining, or hydro-electric power development. Regulations and policies aimed at ensuring protection apply to these areas. MNR acknowledges non-compliance with a policy mandating a management plan for each park and review every 10 years. Management plans are in place or being developed for all parks operated for public use. An interim management statement (IMS) is in place for 150 of 187 parks that lack management plans. As new parks are regulated, IMSs are being prepared. A statement of conservation interest (SCI) or resource management plan (RMP) has been prepared for 145 of 234 conservation reserves. As new conservation reserves are regulated, SCIs or RMPs are being prepared. IMSs and SCIs are generally prepared without consultation, because they formalize existing policy direction already subjected to consultation. If new policy direction is introduced, there would be public consultation. MNR asserts that this approach to consultation is adequate. Notwithstanding the high level of protection provided, MNR acknowledges the need to enhance protection. The government has committed to a review of protected areas legislation. MNR will prepare appropriate management direction for each protected area. A risk-based enforcement strategy for non-operating parks is being developed.

Invasive Alien Species– A Threat to Biodiversity

MNR: Ontario recognizes the importance of addressing the issue of invasive species to protect environmental, economic and social interests. Clearly, this issue has major implications for Ontario native species biodiversity. In May, the Minister of Natural Resources announced Ontario would begin working on an invasive species strategy in June 2004 that would complement the National Alien Invasive Species Strategy. Work has commenced on this strategy with completion and approval planned for next year as a component of a broader biodiversity strategy. Development of the strategy will include numerous government and non-government stakeholders and public consultation.

EBR Rights Lost: Behind the Veil of Section 32

MOE: MOE is committed to continuous improvement of the EA process. This includes an expert panel to advise on ways to improve the EA while maintaining or enhancing environmental protection. The panel will focus on three key areas – waste management facilities, transportation/transit, and, to support this government's energy strategy respecting clean energy projects. Under *EBR* (section 32), MOE does not require posting instruments that implement EA decisions. Publicly available, EA Reviews typically include a list of significant instruments required for a proposed undertaking to proceed so that public concerns about instruments can be raised during the EA process. MOE believes that emphasis on consultation at the planning stage of the EA process is the most effective approach to ensuring issues are identified and resolved before site specific decisions are made. When individual or Class EA processes are completed and decisions are rendered, the public will have had the opportunity to raise concerns through extensive consultation and proponents will be provided certainty on the conditions required to proceed with their projects. Under the Class EA process, the level of public consultation and assessment required for each category of projects matches the level of potential environmental effect anticipated. Not all projects warrant the same level of assessment. Those Class EA categories which do not require extensive consultation are characterized by well understood impacts that can be mitigated. All Class EA processes contain a mechanism which allows the public to request that a project be "bumped-up" to a higher level of assessment. This appeal mechanism ensures the ministry is made aware of unresolved issues. When a bump-up request is not granted, conditions may be imposed to address specific issues. Proponents may be asked to revise studies, conduct additional consultation, or carry out work to address specific concerns.New Class EAs require five-year reviews that identify and address issues raised by the public during the five years. They also require annual reporting of effectiveness monitoring. The public may request amendments and the Minister may amend a Class EA at any time. MOE takes EAA non-compliance seriously. As highlighted by ECO, MOE has developed a compliance monitoring strategy and recently adopted a procedural framework for conducting internal reviews and audits for EA and Class EA annual reports.

MNR: MNR remains committed to providing appropriate public consultation under the *EBR* and the planning processes under the EAA. For example, in the body of the report, the ECO commends MNR for incorporating *EBR* public participation processes into its Forest Management Planning Manual amendment and consultation process and for exceeding the minimum *EBR* requirements in that example.

[**ECO comment:** While there certainly are examples of high quality public consultation work carried out by MNR, the Forest Management Planning Manual example cited here is not relevant to the Section 32 issue.]

MOE's Policy on Industrial Air Emissions

MOE: On June 21, 2004, MOE announced a Five-Point Plan for Cleaner Air that will reduce industrial emissions of harmful air pollutants. The standards component was posted on the Environmental Registry and includes new proposals, based on health or environmental impacts, for 28 pollutants and a decision on n-hexane; a proposed *Air Dispersion Modelling Guideline for Ontario*, which will give a more accurate assessment of health and environmental impacts; and a proposed *Guideline for the Implementation of Air Standards in Ontario* that would improve implementation of air standards.

MNR's Compliance Program for Sand and Gravel Operations

MNR: MNR and MOE have a protocol to address environmental pit and quarry complaints from the public. This protocol clarifies how a complaint is handled in an expeditious, effective and efficient manner and achieves the needed environmental protection. MOE and MNR meet annually to review the protocol and make any necessary amendments. MNR continues to explore opportunities to address staff complement and capacity issues for the program. Ontario Regulation 93/04 was passed under the *Provincial Offences Act* to list eight offences where Part 1 tickets can be issued. Implementation of fines is awaiting final approval of the Chief Justice.

Monitoring of Aquatic Ecosystem Indicators

MOE: MOE agrees that stream water quality monitoring is an important part of watershed management. Currently, the Provincial Water Quality Monitoring Network collects approximately 90,000 pieces of water quality information annually. The Ontario Benthos Biomonitoring Network will remove numerous barriers to the widespread use of benthos to evaluate water/sediment quality and is seen as a pilot project for a larger, Canada-wide network. The Sport Fish Contaminant Monitoring Program provides consumption advice for sport fish at more than 1,700 locations throughout the province. Overall, the number of restrictions on sport fish consumption continues to decline. Recognizing groundwater is a precious resource, MOE has worked in partnership with 36 Conservation Authorities and 10 Municipalities to establish and operate the Provincial Groundwater Monitoring Network. The Lake Partner Program operates in partnership with the Federation of Ontario Cottagers Association and is the largest volunteer lake sampling program in North America.

MNR: MNR monitors aquatic ecosystem health in the following ways:

- Monitoring of indicators of fish population and community status in the Great Lakes
- Targeted monitoring as ecosystem issues arise (e.g. zebra mussels, gobies, *bythotrephes* etc.)
- Site specific evaluations of lake trout populations to determine appropriate management actions
- Evaluation of the impacts of road access to remote trout lakes during the forest management planning process
- Water Power Planning ensures sustainable development of waterpower resources and, in the future, effectiveness monitoring will evaluate the effects on aquatic ecosystems.
- An increased number of Surface Water Monitoring Network sites support:
  - Source Water Protection Planning
  - Ontario Low Water Response
  - Design of dams, bridges and other in-water structures
  - Provincial Flood Forecasting and Warning
  - Monitoring of climate change and variability impacts to surface water levels and flows

Protecting the Wolves of Algonquin

MNR: The ministry is developing a provincial wolf management program and is committed to obtaining the necessary information to support sound management decisions. MNR will continue to monitor Algonquin Provincial Park wolf populations and to address outstanding research questions.

Who enforces the Class EA? – The ORC Case

MOE: MOE takes EA non compliance very seriously. The Ministry asserts that thorough reviews in response to the request for an EBR investigation and bump-up request were conducted. At the same time, MOE appreciates the ECO's comments and will carry forward the lessons learned from this experience.

MOE proceeded with an investigation even though additional information to support the request was not provided. Unfortunately, information about aboriginal interests was only brought to light during the subsequent private prosecution. The investigation included a review of the project categorization and an assessment of compliance with the requirements of the Class EA. Consultation and Document Records and all supporting documentation were requested from ORC. Based on the information provided by ORC, MOE's investigation determined that ORC did meet the requirements of the Class EA for Category B projects. The ECO concurs with the MOE that the categorization of the projects was correct. [The ECO notes that we accepted MOE's categorization of the Reesor Road project only.]

ORC: The Class EA undertaking for the Reesor Road property was completed in October 2001 and while ORC believes it adequately consulted in this instance, it has since taken steps to expand consultation and maintain better documentation. In subsequent undertakings, the corporation is taking steps to reach out to stakeholders, the public and especially with Aboriginal groups through a number of avenues to allow for broad participation in the consultation process. For example, the Ministry of Municipal Affairs and Housing as well as the MBS/ORC have been in contact with both the Ontario Native Affairs Secretariat (ONAS) and Indian and Northern Affairs Canada in an effort to identify interested First Nations that may want to be part of the Class EA public consultation process for the Oak Ridges Moraine Land Exchange.

The Nutrient Management Regulation

MOE: MOE is currently revising and updating the *Guidelines for the Utilization of Biosolids and Other Wastes on Agricultural Land* to include enhanced standards from the Nutrient Management Regulation. The Guidelines provide direction to Directors when they establish standards for Certificates of Approval for land application of non-agricultural source materials.

OMAF: For subject farms, the number of livestock on any particular farm will be influenced by the Nutrient Management Plan, if that operation applies manure to farmland. Sufficient land for manure application must be available or the manure must be transferred to a broker or another farm. A smaller number of larger livestock farms produce a large share of the livestock produced in Ontario and at least one quarter of the manure produced on Ontario livestock farms. On the basis of addressing overall environmental risk, regulating larger livestock farms is an appropriate strategy. This approach will address many significant risks to water quality. The focus of O.Reg. 267/03 is to reduce pathogens in manure and minimize the risk of pathogens entering surface or ground water by changing on-farm practices. Identifying new and improved ways of reducing pathogen risks are an on-going focus. In addition, a program for testing manure for metals is underway to assess the possible need for metal standards for manure. Ensuring co-ordination between nutrient management and watershed-based source protection planning and implementation is a priority for OMAF and MOE. Justice O'Connor noted the potential role the *NMA* could play in implementation of source protection. O.Reg. 267/03 helps address a number of Justice O'Connor's recommendations. OMAF has committed to making part of the NMPs and NMSs available upon request to the public to ensure the decision making process is transparent to the public.

New Drinking Water Regulation under the *Safe Drinking Water Act, 2002*

MOE: MOE has made significant progress in establishing a comprehensive province wide source protection program. On December 18, 2003, the government announced two multi-stakeholder expert committees tasked with providing advice to the government on the technical and implementation aspects of source protection. A White Paper on Watershed-based Source Protection Planning, was released on February 12th, 2004, describing potential planning components of source protection legislation. Throughout March 2004, direct consultations on the White Paper were held across Ontario. On June 23, 2004, draft source protection planning legislation was posted on the Environmental Registry. The draft legislation addresses all sources of drinking water: inland lakes, rivers, groundwater and the Great Lakes.

Protecting the Kawartha Highlands: The First OLL Signature Site

MNR: The Legislature chose to pass the Act because this was determined to be the most effective way to give assurance to stakeholders that policy commitments made after public consultation would be binding. Normally many of the matters dealt with in the Kawartha Highlands Signature Site Park Act are addressed through park specific park management planning policies. The generality of the Provincial Parks Act and Regulations apply to the Kawartha Highlands Signature Site.

The government is committed to a review of the Provincial Parks Act and the need to update it is recognized. However, pending completion of the review and passage of new legislation by the Legislature, the Provincial Parks Act and Regulations, together with the extensive policy framework developed over the past 26 years, provide in practical terms a high level of protection for provincial parks, including Kawartha Highlands Signature Site Park.

Environmental Assessment for Forest Management

MOE: The conditions of the Declaration Order build on MNR's implementation of the EA Board's decision for timber management in Ontario. MNR's Forest Management Planning Manual entrenches much of the detail that was removed from the Class EA approval. Manual changes will be scrutinized by MOE. Public accountability mechanisms have been strengthened by conditions of the Declaration Order through the inclusion of requirements to make more documents and findings publicly available. The Order retains requirements for Local Citizens Committees, mandatory public consultation, issues resolution, public reporting, auditing and the public's right to request the Minister of the Environment to require an individual EA. MNR will be required to review and publicly report on progress it has made in implementing conditions of the Declaration Order every five years. Upon completion of the review, if MNR proposes changes to the conditions, it must follow the required amending provision. This includes mandatory public consultation, review and approval by MOE, and further approval by Cabinet. At the same time, if unsatisfied with MNR's progress in implementing conditions of the Order, members of the public have the ability, through the same amending provision, to propose changes. With respect to MOE's commitment to third party audits of MNR's annual reports, MNR is required by the Class EA to have each of its forest management units independently audited every 5 years. MOE also recently developed a compliance monitoring strategy and procedural framework for reviews and audit considerations for EA and Class EA annual reports.

Roadless Wilderness Areas

MNR: OLL created 613,000 ha of Remote Recreation Enhanced Management Areas and 60,000 ha were added to existing Wilderness Parks. Remoteness is being planned for locally within forest management plans. Resource Stewardship Agreements are being established through efforts of the forest industry, tourism industry, MNR and MTR to assist in addressing road issues. MNR's position is that Timber Class EA Term and Condition 106 has been met through the policy, "Ontario's Approach to Wilderness: A Policy'.

Forest Management Policy for Old Growth

MNR: MNR's position is that the Old Growth Policy and the Forest Management Planning Manual provide direction for old growth conservation for all major forest species in managed forests, including red and white pine. The forest management plan must: consider and provide for old growth during the assessment of objective achievement and determination of sustainability; and, report on these requirements in year 7 and 10 annual reports. These reports are used to develop subsequent forest management plans. MNR will use this information to document progress in achieving old growth conservation objectives in Ontario's 5-year state of the forest reports.

New Direction on Electricity Pricing

ENG has ensured proper oversight of these companies through regulation by the Ontario Energy Board. When Bill 4 was introduced, the previous government's price freeze had cost Ontarians over $800 million. Given the unsustainable nature of the price freeze, Bill 4 was passed by legislature on an urgent basis, giving the Ministry limited opportunity to consult with the public through the Registry. ENG is posting Bill 100 on the Registry for a 45-day comment period.

Stormwater Management Planning and Design

MOE: A draft *Drinking Water Source Protection Planning Act* has been posted on the Environmental Registry for public comments. It sets out provisions governing Source Protection Planning in Ontario. The Oak Ridges Moraine Conservation Plan policies are a good starting point for consultation regarding watershed planning and for environmental protection and protection of water quality. MOE is developing a comprehensive tool kit to assist municipalities and agencies to implement the ORMCP. Stormwater management policies in the ORMCP provide a high level of water quality protection in this significant area. MOE also has entered into discussions with municipalities for the review of stormwater management activities and best management practices of other jurisdictions that would help municipalities deal with stormwater management issues. MOE is working with MTO on practices that reduce the amount of road salt used while ensuring the public safety. Ontario has comprehensive legislation and regulations governing the sale and use of pesticides.

The Revised Water Wells Regulation

MOE: The Minister has asked the Drinking Water Standards Council to review Regulation 903's chlorination standard. All comments received via *EBR* consultation were reviewed and evaluated. Over three-quarters of the comments received were addressed and incorporated into the final amendments. A majority of the remaining comments pertained to either compliance issues or requests for exemptions from requirements. Ontario's standards for well construction and abandonment now match or exceed other leading jurisdictions in North America. MOE recognizes that the regulation requires an appropriate level of provincial oversight in order to be effective. To clarify the regulation for private well owners, MOE has updated four Fact Sheets on well construction, held information sessions on the new Regulation 903, and is planning to publish a Guide to Ontario's Wells Regulation 903 for owners and a Well Industry Manual for well drillers and pump installers. MOE assesses regulations as they are implemented and will clarify technical aspects of Regulation 903 as needed through both continued outreach and technical amendments.

Ecosystem Impacts of Mercury

MOE: Ontario scientists are monitoring mercury levels in higher order wildlife and have published a peer reviewed study documenting mercury impacts on mink. Under the Canada-Ontario Agreement (COA), documented mercury emissions reductions of 83% have been achieved; the target of a 90% reduction is anticipated to be met by 2010. Base metal smelters in Ontario are a very small source of mercury.

The Canadian Council of Ministers of the Environment will receive an update on the development of a CWS for coal-fired power plants in the fall of 2004. Aligning with the United States and achieving national reductions in excess of 60% are being evaluated. Ontario is committed to developing cleaner energy sources to replace coal-fired generation in Ontario by 2007. The Lakeview station will cease burning coal by April 2005. Preliminary results from the Royal College of Dental Surgeons of Ontario indicate that approximately 99% of the 7800 dentists in Ontario appear to be in compliance with O. Reg. 196/03. The installation of amalgam traps/filters reduces loadings to the municipal sewer systems substantially and immediately. Mercury is a persistent substance, and levels will not change drastically on an annual basis for higher order organisms without substantial reductions in upwind sources outside Ontario. Ontario continues to collaborate with the federal government on actions to reduce mercury emissions upwind of Ontario.

OPG Mercury Emissions: Is There A Contravention Of Law?

MOE: The Ministry conducted a thorough review of the alleged contravention. Following on its investigation, MOE would like to provide an update:

- Environment Canada also responded to the applicants indicating that "there was insufficient information to support a direct scientific link from a (OPG) stack to fish-bearing waters". The Ministry has offered to provide assistance as appropriate to Environment Canada as it further reviews the matter under the Fisheries Act.
- Ministry representatives recently met with representatives from the applicant to further discuss this matter and to establish an ongoing dialogue on the issue.

- The Ministry reviewed existing records for the 5 coal-fired plants which included a review of their compliance with Reg. 346, all Air Certificates of Approval, and their Selected Targets for Air Compliance (STAC) reports and did not find any compliance issues or exceedances that would justify the use of compliance tools under either the *Ontario Water Resources Act* or the *Environmental Protection Act*.

Ontario is committed to developing cleaner energy sources to replace coal-fired generation in Ontario by 2007. The Lakeview station will cease burning coal by April 2005.

MNR: MNR has participated actively with MOE, Environment Canada, Parks Canada, Department of Fisheries and Oceans and Conservation Ontario in the development of a new Fish Habitat Compliance Protocol. Procedures have been developed within the new Protocol to improve agency integration on investigations and compliance activities involving more than one agency and various pieces of legislation relating to water quality and fish habitat. A key component of this protocol is to ensure that the most appropriate legislation and agencies are used in dealing with specific compliance issues.

Open Netcage Aquaculture in Georgian Bay

MOE: MOE's review is expected to be completed at the end of 2004 and the results will be shared with the ECO. The total phosphorous monitoring criteria indicated in the "Recommendations for Operational Water Quality Monitoring at Cage Culture Aquaculture Operations, Final Draft, April 2001" are consistent with MOE's Water Management Guidelines, including the PWQO. MOE's water management policy 1 states that "in areas which have water quality better than the Provincial Water Quality Objectives, water quality shall be maintained at or above the Objective". Degradation below the PWQO will not be allowed.

MNR: Aquaculture license applications are screened for potential impacts on local fisheries including potential interactions between the species and strain proposed for culture with local fish populations. Aquaculture licenses are only issued when the species in question and the escape prevention methods that are to be in place, pose an acceptable risk. Recognizing the high potential for escapement of rainbow trout from cages in the Great Lakes, MNR reviewed the associated risks in 1997-98. MNR concluded that the genetic and evolutionary consequences of irregular large-scale escape events are not a major concern given the high levels of genetic diversity within the Great Lakes naturalized rainbow trout populations.

Forestry Operations Compliance System

MNR: MNR agrees with the importance of public transparency, continues to take steps to increase this and will carefully consider suggestions made. We note that independent Forest Audits have required a full examination of the compliance program since 1998, but reporting on such by independent auditors is dependent upon their findings. MNR works diligently to follow all *EBR* requirements fully, including instrument classification and registry postings, and appreciates the ECO's positive comments elsewhere in this report on our efforts to expand registry postings.

Refillable Soft Drink Regulations – Not Gone Yet

MOE: The previous government proposed to revoke these regulations (RA03E0018 posted on April 30, 2003). The ministry received nine comments on its proposal; seven respondents were opposed and two were in favour. The Blue Box Program Plan recently approved under the *Waste Diversion Act, 2002*, with enhancements suggested by the Minister including a 60% diversion target, is expected to improve capture rates for soft drink containers for recycling.

The *Drive Clean* Program for Light-Duty Vehicles

MOE: MOE is currently working with Environment Canada in developing an updated emissions estimation model. An updated model will ensure that Ontario emissions reductions resulting from MOE air programs are properly reflected. MOE further advises that:

1. Recent technical summaries of emissions reductions will be available on its website by late 2004 and posted on the Environmental Registry.

2. Studies on vehicles that fail the *Drive Clean* test intermittently contain private information collected solely for complaint resolution purposes. It is inappropriate for MOE to publish this information.
3. An external analyst was unable to replicate the findings in the study cited by the applicants. Given the study's limitations, it was decided that further study of the applicants' findings was not justified.
4. New estimates of emissions reductions published by MOE will account for tightened standards.
5. MOE will publish the 2006/2007 program review on the Environmental Registry for comment.
6. The 2006/2007 comprehensive review will consider improvements in emissions control technology, fuels, *Drive Clean* results and overall air quality.

Red Hill Creek Expressway

MOE: MOE takes EA non-compliance seriously. The Red Hill Creek Expressway was approved in 1985 after public consultation, government review, and a public hearing. A Declaration Order was granted to the municipality in 1997 exempting subsequent design improvements from requirements of the *EAA* and requiring preparation of technical studies. MOE completed a follow-up with the City of Hamilton. The City identified a Community Relations Program which provides both information and consultation components to satisfy the intent of the Order. The City has met with ministries and agencies to obtain permits and approvals and has stated that a meeting of the Government Agency Committee occurred. The City replaced the Landowners Committee with direct negotiations with affected landowners. In 1998, the Community Stakeholders Committee unanimously resolved that its work was complete and was disbanded. The City remains responsible for making timely applications and obtaining the required permits or authorizations from the appropriate regulatory bodies. MOE's response was based on consideration of the seriousness of the alleged offences and likelihood of successful prosecution. It will continue to monitor this project.

Highway Construction and Failings of the E. A. Process

MOE: MOE is committed to continuous improvement of the EA process. This includes an expert panel to advise on ways to improve the EA while maintaining or enhancing environmental protection. The panel will focus on three key areas including transportation/transit.

MOE confirms that: reports required by MTO as a condition of the EA were received; it worked cooperatively with the applicants to fulfill their information requests and did release internal documents related to the application; and it continues to make all EA approval documents available to the public upon request. MOE looks forward to MTO's response to recommendations in the environmental compliance audit report regarding environmental practices on future MTO road construction and maintenance projects. In addition, MOE will review this report in order to identify opportunities to enhance our requirements for third party audits.

MTO: As referenced, MTO is in receipt of an MOE Provincial Officer's Order that requires MTO to "self-audit" its highway construction activities. Fulfillment of the terms of the Order will provide more information regarding the role of both ministries in ensuring MTO's construction activities adhere to commitments made as part of *EAA* approval. MTO feels that there was not considerable disagreement between MTO and MOE. MTO's EA was subject to legislated review and comment by the MOE – the regulator ("the Blue Review"). MTO responded to all issues and comments raised. Requirements to initiate additional environmental studies and define mitigation measures before construction were identified in the Order-in-Council approval as terms and conditions. MTO disagrees with the statement that it required the complainant to file an FOI request to obtain copies of the EA. Requested documents were provided to complainant's legal counsel July 11, 2002 following a delay caused by the OPSEU strike.

Ministry Progress

Renewable Portfolio Standard – ENG: Bill 100, *Electricity Restructuring Act* would permit the Minister to set renewable energy targets. The Bill was posted on the Registry on June 22, 2004 for a 45-day comment period. In 2004, ENG issued a Request for Proposals for approximately 300 MW of new renewable electricity capacity.

Greening Initiatives – MBS: MBS announced a four-step plan to reduce its electricity consumption by 10%, which includes over 100 capital repair projects in 2004-2005.

Fisheries Act – MOE: MOE's principle enforcement mechanism in this area is the *Ontario Water Resources Act*. In 2003/04, MOE laid 25 *Ontario Water Resources Act* charges that are directly comparable to the Fisheries Act for water quality impairment. In 2003/04 MOE assisted Environment Canada in two water impairment investigations where Environment Canada laid charges under the *Fisheries Act* and the *Migratory Birds Convention Act*, 1994.

Safe Drinking Water Act – MOE: MOE would like to clarify that on January 28, 2004, six new MOHLTC and MOE proposals for protocols, guidelines and memoranda related to drinking water were posted on the Registry. These proposals also cover responsibilities related to private wells and water haulage services. One of the six proposals posted was a memorandum of understanding between MOE and MOHLTC to formalize the relationship of MOE staff and public health units in the delivery of the safe water program.

Dead Animal Disposal – OMAF: The Government funding program ended March 2004. OMAF is developing a comprehensive new regulatory framework including standards for safe disposal of deadstock.

Altering the Nitrogen Cycle: Massive Human Intervention in Nature

MNR: MNR concurs that this is an important developing issue and that all agencies involved need to monitor to better understand the impact of nitrogen emissions on the global nitrogen cycle.

MOE: Through participation in the Canadian Council of Ministers of the Environment (CCME) Water Quality Task Group, the ministry had an active role in the development of the Canadian Water Quality Guideline (CWQG) for nitrate. The ministry's policy is that, in the absence of a Provincial Water Quality Objective (PWQO), the CWQG is used as an appropriate substitute. The nitrate CWQG is used as a benchmark in the ministry's surface water quality monitoring programs (e.g. the Provincial Water Quality Monitoring Network). The ministry will be reviewing the nitrate CWQG to determine if it would be suitable to adopt as a PWQO.

OMAF: The management of nitrogen is being considered holistically as the nitrogen cycle is intimately connected to the carbon cycle through the carbon to nitrogen (C:N) ratio of organisms and organic materials. Human activities contribute more nitrogen globally but human activities also remove more nitrogen than natural processes can provide.

The comments made about the connections between the use of synthetic fertilizers on feed crops, nitrogen content of manures, livestock operations and elevated nitrogen levels in an area are not accurate. Application of synthetic fertilizers does not change the composition of crops as this is fixed genetically. Livestock operations do not necessarily elevate nitrogen levels in an area. It is the potential for imbalance between nitrogen supply and uptake by crops – when nitrogen supply exceeds crop requirements – that is a concern. Nutrient management is a tool to ensure better matching of nitrogen being applied to land with crop needs and so avoid elevation of nitrogen levels in soil and water.

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ECO Staff April 1, 2003 – March 31, 2004

Rebecca Bell – Policy & Decision Analyst

Robert Blaquiere – Systems, Webmaster & Case Manager

Darla Cameron – Policy & Decision Analyst

Maureen Carter-Whitney – Legal & Policy Analyst

Ann Cox – Resource Centre Administrator

Bev Dottin – Public Information & Education Officer (Acting)

Dennis Draper – Senior Policy Adviser

Bev Edwards – Policy & Decision Analyst

Elizabeth Farkas – Library Assistant

John Ferguson – Public Education Adviser

Greg Jenish – Policy & Decision Analyst

Peter Lapp – Executive Assistant

David McRobert – In-House Counsel/Sr. Policy Adviser

Cynthia Robinson – Office Administrator

Nadine Sawh – Case Management File Clerk

Ellen Schwartzel – Senior Policy Adviser

Lisa Shultz – Policy & Decision Analyst

Chris Wilkinson – Policy & Decision Analyst

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1075 Bay Street, Suite 605
Toronto, Ontario, Canada M5S 2B1
Telephone: 416-325-3377
Fax: 416-325-3370
Toll Free: 1-800-701-6454
www.eco.on.ca

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